2021

Draft Environmental Assessment

North Dakota Air National Guard
119th Wing
Hector International Airport
Fargo, North Dakota

United States Army Corps of Engineers, Chicago District
3/24/2021

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PRIVACY ADVISORY

Your comments on this Draft Environmental Assessment (EA) are requested. Letters or other written or oral comments provided to the National Guard Bureau (NGB) may be published in the Final EA. As required by law, comments will be addressed in the Final EA and made available to the public. Any personal information provided will be used only to identify your desire to make a comment or to fulfill requests for copies of the Final EA or associated documents. Private addresses will be compiled to develop a mailing list for those requesting copies of the Final EA. However, only the names of the individuals making comments and their specific comments will be disclosed. Personal home addresses and phone numbers will not be published in the Final EA.

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EXECUTIVE SUMMARY

The United States Air Force proposes to redevelop the 119th Wing (119 WG) base at the Hector International Airport to meet force protection, modern mission, and training requirements to continue operation. The Proposed Action constructs five (5) new facilities, renovates nine (9) structures, and includes various pavement repairs and several facility demolitions.

Three alternatives, including the No Action Alternative, were identified and considered during the planning stages of the proposed project.

- Alternative 1 generally includes various forms of renovation, relocation, and construction within the base footprint.
- Alternative 2 is the Proposed Action/Preferred Alternative.
- The No Action Alternative is required by 40 CFR 1502.14(d). Under the No Action Alternative, the construction, renovation, and demolition projects will not occur.

The Proposed Action would not significantly impact any of the resources analyzed. A listing of the resources with impacts other than significant are as follows:

- **Safety** – Long-term beneficial impact. The upgraded and newly located Entry Control Facility (ECF) will provide a secure and safe entrance into the installation. Additionally, renovations and repairs will bring buildings and systems into compliance with safety and health regulations.
- **Air Quality** – Temporary construction-related impact. Dust and combustion emissions from construction-related activities would create short-term air emissions.
- **Noise** – Temporary construction-related impact. Construction-related noise would have minor, temporary effects on the noise environment in the vicinity of the Proposed Action area.
- **Land Use** – No significant impact.
- **Geological Resources** – Temporary construction-related impact. Construction activities would include soil disturbance either through demolition or ground clearing for preparation of construction.
- **Water Resources** – No significant impact.
- **Transportation and Traffic Circulation** – Long-term beneficial impact. The movement of the fueling station creates a less congested environment leading to more efficient traffic movements.
- **Visual Resources** – No significant impact.
- **Cultural Resources** – No significant impact.
- **Socioeconomics** – Short-term beneficial impact. The implementation of construction projects will bring an opportunity for temporary local jobs, including both skilled and unskilled (general labor) construction and related work.

Implementing the Proposed Action would have no significant adverse effects, and no mitigation measures would be required. For many resource areas, best management practices (BMPs) would be implemented to further minimize the potential effects. The following resources are not impacted or would only experience temporary impacts:

- **Air Quality** – Temporary construction-related impact. Project construction would employ BMPs to minimize fugitive dust and tailpipe emissions. These BMPs are not necessarily all-inclusive; the 119 WG installation, North Dakota Air National Guard, and any contractors would need to comply with all applicable air pollution control regulations.
- **Noise** – Temporary construction-related impact. Project construction work hours are limited to avoid early morning, evening/night, and weekend work to minimize nuisance noise levels at nearby residences.
- **Geological Resources** – Temporary construction-related impact. BMPs will be implemented in accordance with the General Permit for Stormwater Discharges Associated with Construction Activity and its associated Stormwater Pollution Prevention Plan (SWPPP).
- **Water Resources** – No significant impact. The Proposed Action would comply with 119 WG General Permits, associated SWPPPs with specified BMPs such as silt fencing, and stormwater controls sufficient to ensure no net increase in peak flow rates and total volume of runoff from the site.
- **Cultural Resources** – No significant impact. In case of inadvertent archaeological or human remains during ground-moving operations, work would immediately cease in the vicinity of the discovery and the 119 WG would conduct further consultation with the State Historic Preservation Office and federally recognized tribes to determine an appropriate course of action.
- **Hazardous Materials and Wastes and Solid Waste** – Temporary construction-related impact. All hazardous materials and waste and solid wastes would be stored and handled in compliance with applicable federal and state laws and regulations, and the procedures outlined in the 119 WG's Hazardous Waste Management Plan.

The impacts of the Proposed Action when combined with impacts from other present or planned development in the surrounding area are not anticipated to result in significant adverse cumulative impacts. Based on the current analysis and impacts, the Proposed Action would not result in significant or major adverse impacts on any of the resources analyzed within this document, and no further analysis or documentation, such as the preparation of an Environmental Impact Statement, is required. If agency and public review identifies other impacts, including potential significant negative impacts, this document may be modified as necessary.

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LIST OF ACRONYMS AND ABBREVIATIONS

AF	Air Force
AFCEC	Air Force Civil Engineering Center
AFB	Air Force Base
AFFF	Aqueous Film-Forming Foam
ANG	Air National Guard
AT/FP	Anti-Terrorism/Force Protection
BRAC	Base Realignment and Closure
CAA	Clean Air Act
CE	Civil Engineering
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	Carbon monoxide
CONUS	Continental/Contiguous United States
CWA	Clean Water Act
DOD	Department of Defense
DOPAA	Description of Proposed Action and Alternatives
DRBS	Disaster Relief Bed down Set
EA	Environmental Assessment
ECP	Entry Control Point
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act
EO	Executive Order
ESA	Endangered Species Act
FONSI	Finding of No Significant Impact
GBCI	Green Business Certification Inc.
HEF	High Expansion Foam
HPSB GP	High Performance and Sustainable Building Guiding Principles
IAP	International Airport
IDP	Installation Development Plan
IICEP	Interagency and Intergovernmental Coordination for Environmental Planning
LF	Linear Feet
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAS	Naval Air Station
NATO	North Atlantic Treaty Organization
NDANG	North Dakota Air National Guard
NDDEQ	North Dakota Department of Environmental Quality
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO_2	Nitrogen dioxide
NRHP	National Register of Historic Places
O_3	Ozone
OSA	Operational Support Airlift
OSHA	Occupational Safety & Health Administration

Pb	Lead
PM	Particulate matter
POL	Petroleum, Oil, Lubricants
RPA	Remotely Piloted Aircraft
RTS	Regional Training Site
SCIF	Sensitive Compartmented Information Facility
SF	square foot
SF Ops	Security Forces
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SO_2	Sulfur dioxide
SY	Square yard
UFC	United Facilities Criteria
USAF	U.S. Air Force
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USC	United States Code
WG	Wing
WOTUS	Waters of the U.S.

1. INTRODUCTION

1.1 BACKGROUND

This Environmental Assessment (EA) was prepared to consider the potential consequences to the human and natural environment associated with required infrastructure improvement projects including renovations, construction, and demolitions at the North Dakota Air National Guard 119th Wing (119 WG), Fargo, North Dakota. This EA identifies applicable management actions and best management practices (BMPs) that would avoid or minimize impacts relevant to the implementation of the Proposed Action and alternatives (to include the No Action Alternative).

This EA has been prepared consistent with NEPA (42 United States Code [USC] 4321-4347), Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act (40 Code of Federal Regulations [CFR] parts 1500-1508), and 32 CFR 989, et seq., Environmental Impact Analysis Process.

As described in 32 CFR Part 989, the NEPA process is intended to provide the Air Force planners and decision-makers with a meaningful review of environmental considerations associated with a given action. The analysis set forth in this EA allows the decision-makers to carefully balance the protection of these environmental resources while fulfilling the Air Force's essential roles, including national defense, and North Dakota Air National Guard's (NDANG) mission to provide adequate training facilities in support of the military mission. Both environmental staff and military personnel within the NDANG were consulted and provided guidance on the development of this EA.

Per amendments to 10 U.S. Code (USC) 10501, described in Department of Defense (DoD) Directive 5105.77, the National Guard Bureau (NGB) is a joint activity of the DoD. NGB serves as a channel of communication and funding between the Air Force and State ANG organizations in the 54 U.S. states, territories, and the District of Columbia. The National Guard Bureau Air Directorate (NGB-CF) oversees the NEPA process for Air National Guard facilities, as required under NEPA, CEQ Regulations, and 32 CFR Part 989

1.2 LOCATION AND HISTORY

The 119 WG is located at Hector International Airport (IAP), Fargo, North Dakota. Fargo is located in southeastern North Dakota approximately 235 miles northwest of Minneapolis, Minnesota and 230 miles north of Sioux Falls, South Dakota. Hector IAP is located in Cass County on approximately 2,500 acres near the intersection of Interstates 29 and 94 (Figure 1). The 119 WG installation is on land leased by the U.S. Air Force from the City of Fargo Municipal Airport Authority and licensed back to the North Dakota ANG. The ANG facility occupies approximately 258 acres on the southeast side of the airfield (Figure 2).

The North Dakota ANG was established in 1947 as a deactivated World War II flying unit at Hector Airport in Fargo, North Dakota. The first fighter aircraft assigned was the P-51Dm, which the unit flew from 1947 to 1954. The unit was later transferred to George Air Force Base (AFB) in California and fulfilled both air-to-ground and air-to-air roles. Upon its return to Fargo in 1953, the unit was released from active duty and was assigned an Air Defense mission, flying P-51s for the runway alert program. In 1954, the unit was assigned to the Air Defense Command and has since flown numerous fighter aircraft, including F-94s F-89s, F-102s, F-101s, F-4s, and F-16s.

In 1999, the unit converted from an Air Defense mission to a General Purpose mission with 15 F-16A/B aircraft while activating an alert detachment at Langley AFB in Virginia. Per Base Realignment and Closure (BRAC) Commission recommendations, the unit officially retired the F-16 mission in 2007. Since the retirement of the F-16 mission, the unit completed a bridge flying mission operating the C-21 from 2007 to 2013, the MQ-1 Predator from 2008 to 2016, and the MQ-9 Reaper has been flown from 2016 to present day. Once the C-21 bridge mission ceased, the unit was considered as a candidate to

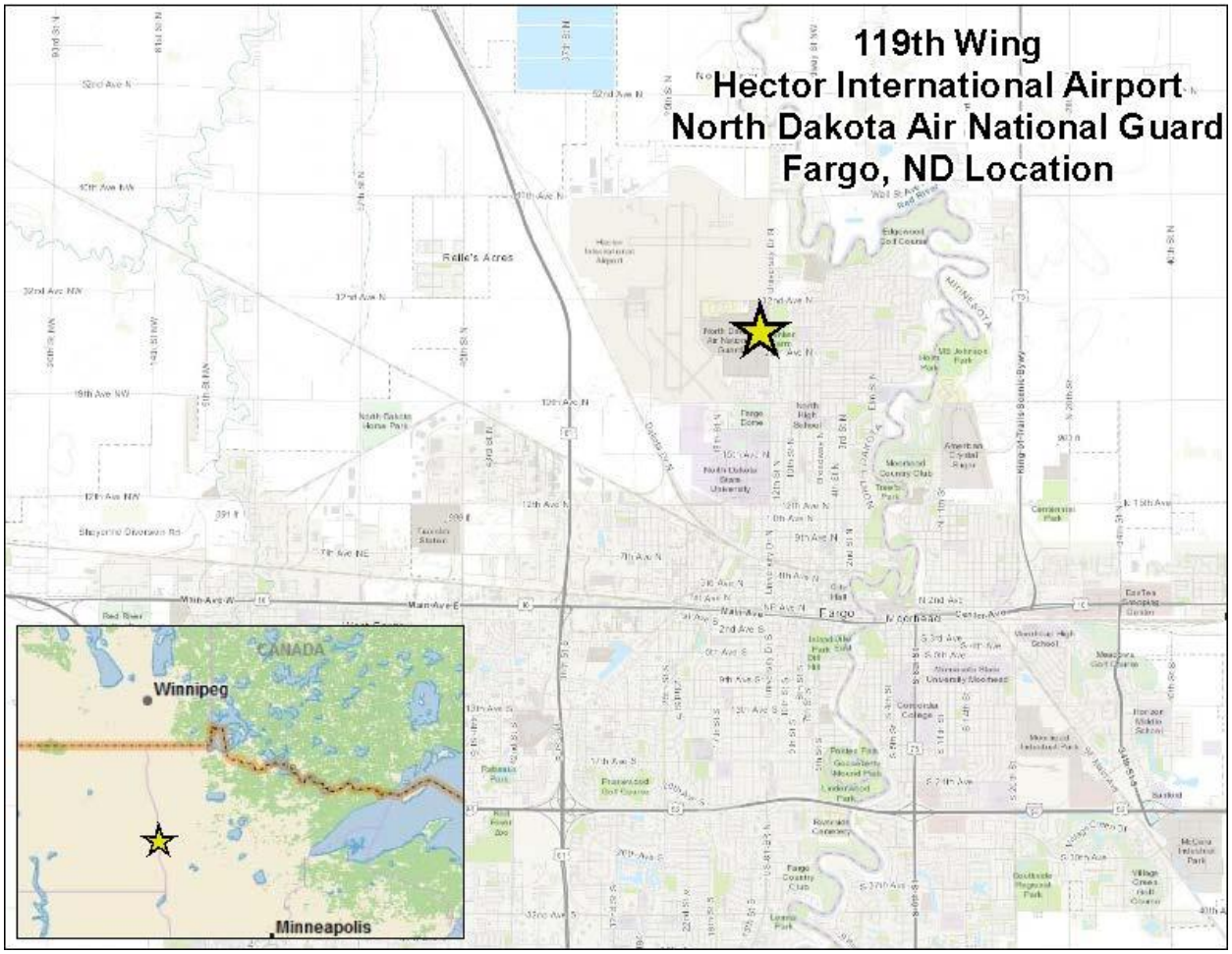

Figure 1: Map depicting the location of the Hector IAP that houses the 119 WG of the ANG.

receive C-27 aircraft; however, the United States Air Force (USAF) elected not to distribute this aircraft to ANG.

A short list of historical events for the 119 WG includes the following:

- 1956 – Activated and extended federal recognition.
- 1956 – Assigned to 133d Air Defense Wing.
- 1960 – Assigned to 128th Air Defense Wing.
- 1965 – Assigned to 132d Air Defense Wing.
- 1969 – Assigned to North Dakota Air National Guard.
- 1972 – Assigned to 142d Fighter-Interceptor Wing.
- 1972 – Redesignated 119th Fighter-Interceptor Group.
- 1974 – Assigned to North Dakota Air National Guard.
- 1983 – Overseas deployment of six F-4s and 120 support personnel to Naval Air Station (NAS) Keflavik, Iceland. Eight Soviet Tupolev Tu-95 “Bear” bombers were intercepted by Hooligan pilots during deployment.

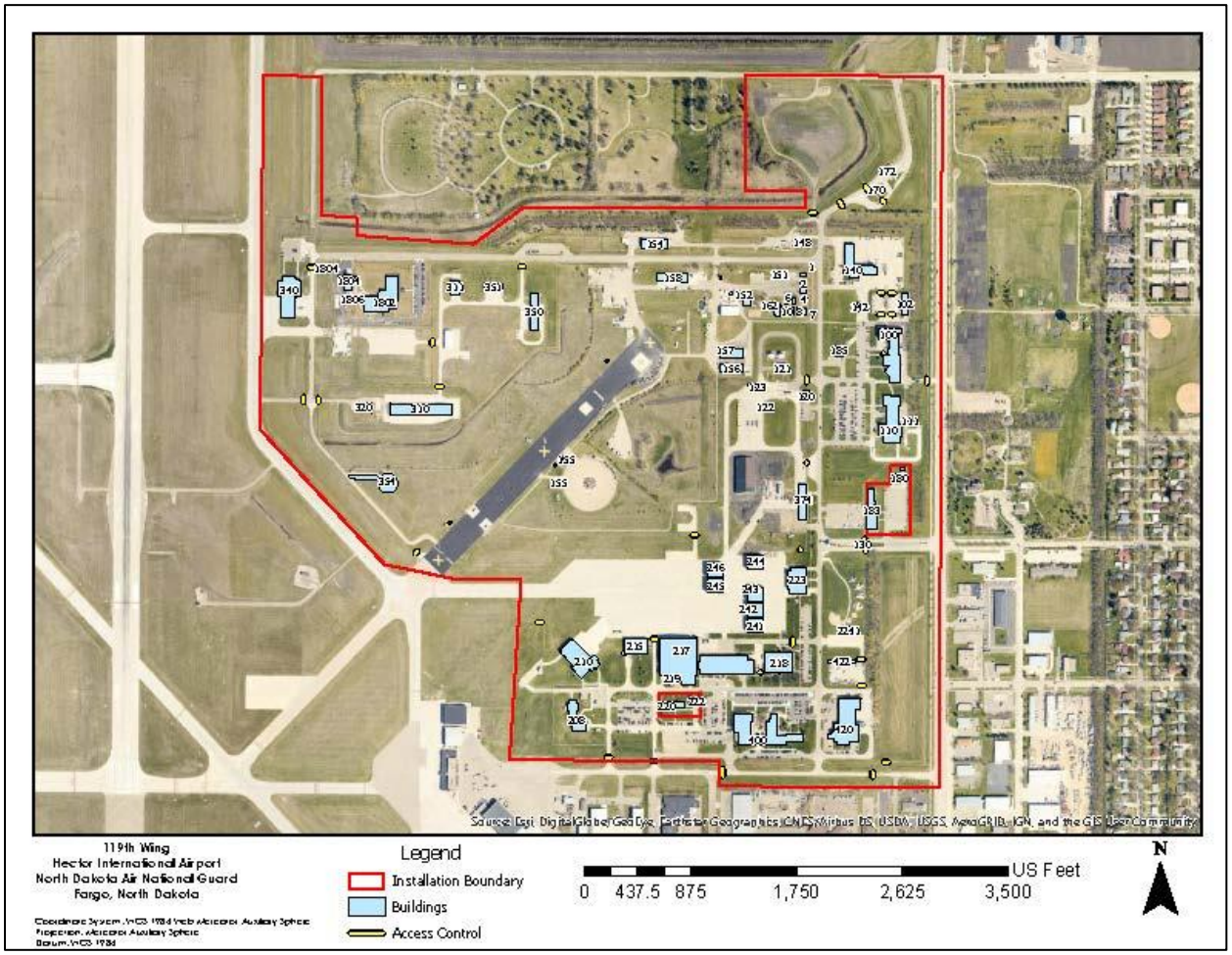

Figure 2: Aerial of the Hector IAP in Fargo, North Dakota that houses the 119 WG of the ANG.

- 1986 – 119th[t] Fighter-Interceptor Group rotated with other Air Defense units to Ramstein Air Base, West Germany and stood continuous alert for one year, providing air sovereignty in Western Europe for North Atlantic Treaty Organization (NATO).
- 1991 – Mobilized and deployed during Operation Desert Storm in support of operations at numerous Continental/Contiguous United States (CONUS) locations.
- 1992 – Redesignated 119th Fighter Group.
- 1995 – Redesignated 119th Fighter Wing.
- 2007 – Redesignated 119th Airlift Wing.
- 2008 – Redesignated 119th Wing.
- 2009 – 177th Airlift Squadron deployed to Iraq in support of Operation Iraqi Freedom, transporting more than 400 service members.

The 119 WG currently operates four (4) MQ-9 Reaper Remotely Piloted Aircraft (RPA) out of Hector IAP. Additionally, the 119 WG is composed of multiple units, including the 119th Operations Group, 178th Reconnaissance Squadron, 119th Maintenance Group, 119th Mission Support Group, 119th Medical Group, 119th Intelligence, Surveillance, and Reconnaissance Group, and the 219th Security Forces Squadron.

1.3 CURRENT 119 WG MISSION AND OPERATIONS

The mission statement of the 119 WG is to “provide trained and ready Airmen executing world class MQ-9 precision attack and reconnaissance kinetic and non-kinetic target intelligence production, and expeditionary support capabilities for the nation and state.” The vision statement is to “leverage innovation and training opportunities, tenaciously fostering a can-do warrior attitude, to build Airmen recognized as Total Force leaders.” The 119 WG has the following missions:

- To provide operationally ready combat units, combat support units, and qualified personnel for active duty in the Air Force to support augmentation requirements.
- To fulfill Air Force war and contingency commitments and to perform such peacetime missions as are compatible with training requirements and the maintenance of mobilization readiness.
- To protect life and property and to preserve peace, order, and public safety as part of its Federal Mission, when directed by the President.
- To provide organized, equipped, and trained units to function efficiently at existing strengths in the protection of life and property and the preservation of peace, order and public safety under competent orders of State authorities.
- To provide Operational Support Airlift (OSA), transportation of distinguished visitors, and aero-medical airlift.
- To conduct armed reconnaissance against critical, perishable targets.
- To act as the Joint Forces Air Component Commander-owned theater asset for reconnaissance, surveillance and target acquisition in support of the Joint Forces commander.

The 119 WG installation currently maintains an inventory of 47 buildings with a total area of 485,550 square feet (SF) within its 250-acre area. The average daily population associated with the 119 WG is 369 personnel; however, twice a month during drill weekends that population increases to 875 guardsmen and women.

1.4 PURPOSE AND NEED

The purpose of this federal action is to support the redevelopment of the 119 WG base, which is in need of upgrading to meet force protection, modern mission, and training requirements to continue operation.

The existing installation does not fully meet current requirements for force protection regulations for Department of Defense (DOD) installations. To mitigate the risk of possible terrorist acts, more stringent DOD Force Protection Guidelines have been developed. DOD Antiterrorism Standards for Buildings, including minimum building setback distance requirements, control points at base entrances, clustering of buildings in a "defensible" orientation, and location of roadways and parking relative to buildings, are not met at the existing base. A redesigned base will incorporate these requirements, complying with DOD guidelines and minimizing potential terrorist threats associated with military installations.

Additionally, new mission and training needs require facilities that are properly upgraded, sized, and configured for optimal operational efficiency. Existing structures at the base range from existing buildings which are in new and good condition, to those in substandard condition that may require demolition in the near future. The redevelopment of the base enables the opportunity to provide functional and safe areas for mission and training needs through renovation, repair, demolition, and new construction projects.

1.5 SUMMARY OF ENVIRONMENTAL STUDY REQUIREMENTS

This document follows federal, state, and local laws, regulations, and policies applicable to the Proposed Action. This section provides an overview of these requirements.

1.5.1 National Environmental Policy Act

The NEPA (42 U.S.C. 4321 et seq.) requires federal agencies to take into consideration potential environmental consequences of proposed actions in their decision-making process. The intent of NEPA is to protect, restore, or enhance the environment through well-informed federal decisions. The CEQ was established under NEPA to implement and oversee federal policy in this process. The CEQ subsequently issued the *Regulations for Implementing the Procedural Provisions of the NEPA* (40 CFR § 1500-1508) (CEQ 1978). The USAF provides its procedures in *Environmental Impact Analysis Process (EIAP)* (32 CFR 989). These regulations specify that an EA be prepared to:

- Briefly provide sufficient evidence and analysis for determining whether to prepare an EIS or a FONSI;

- Aid in an agency's compliance with NEPA when no EIS is necessary; and
- Facilitate preparation of an EIS when one is necessary.

To comply with NEPA and other pertinent environmental requirements, such as those established by the Endangered Species Act (ESA) and the National Historic Preservation Act (NHPA), the decision-making process includes a study of environmental issues related to the Proposed Action at the 119 WG.

1.5.2 The Environmental Impact Analysis Process

Both NEPA and CEQ regulations require intergovernmental notifications prior to making any detailed statement of environmental impacts. Through the process of Interagency and Intergovernmental Coordination for Environmental Planning (IICEP), the USAF must notify concerned federal, state, and local agencies and the public, and allow them sufficient time to evaluate potential environmental impacts of a Proposed Action. Through the IICEP process, this document is meant to notify relevant federal, state, and local agencies and the public of the actions proposed and to solicit any comments or concerns. The IICEP distribution list and agency responses to the Proposed Action at the 119 WG will be documented and used in the EA to determine any impacts to resources.

1.5.3 Endangered Species Act

The ESA (16 USC §§ 1531–1544, as amended) established measures for the protection of plant and animal species that are federally listed as threatened and endangered, and for the conservation of habitats that are critical to the continued existence of those species. Federal agencies must evaluate the effects of their Proposed Actions through a set of defined procedures, which can include the preparation of a Biological Assessment and can require formal consultation with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the ESA.

1.5.4 Clean Air Act and Conformity Requirements

The Clean Air Act (CAA) (42 USC §§ 7401–7671q, as amended) provided the authority for the U.S. Environmental Protection Agency (USEPA) to establish nationwide air quality standards to protect public health and welfare. Federal standards, known as the National Ambient Air Quality Standards (NAAQS), were developed for six criteria pollutants: ozone (O_3), nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter (PM), and lead (Pb). The CAA also requires that each state prepare a State Implementation Plan (SIP) for maintaining and improving air quality and eliminating violations of the NAAQS. Under the CAA Amendments of 1990, federal agencies are required to determine whether their undertakings are in conformance with the applicable SIP. In addition, they must demonstrate that their actions will not cause or contribute to a new violation of the NAAQS; increase the frequency or severity of any existing violation; or delay timely attainment of any standard, emission reduction, or milestone contained in the SIP. The USEPA's General Conformity Rule, 40 CFR Part 51, Subpart W, requires proponents in maintenance and nonattainment areas to perform an analysis to determine if its proposed action would conform to the SIP. Under

the General Conformity Rule, the action is exempt if the total direct and indirect emissions from the Proposed Action are below the *de minimis* levels.

1.5.5 Water Resources Regulatory Requirements

The Federal Water Pollution Control Act (also known as the Clean Water Act [CWA]) has a goal to restore and maintain the chemical, physical and biological integrity of waters (lakes, rivers, streams, wetlands, estuaries, and coastal zones) throughout the nation. As such, the CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating water quality standards for surface waters. Pertinent sections of the CWA include but are not limited to:

> Section 401 gives States and authorized Tribes the authority to grant, deny, or waive water quality certification of proposed federally-licensed or permitted activities that may result in a discharge into Waters of the United States.
>
> Section 402 requires that all construction sites on an acre or greater of land, as well as municipal, industrial, and commercial facilities discharging wastewater or stormwater directly from a point source (a pipe, ditch or channel) into a surface water of the United States (a lake, river, and/or ocean), must obtain permission under the National Pollutant Discharge Elimination System (NPDES) permit.
>
> Section 404 regulates development activities in Waters of the US (WOTUS), including wetlands. It requires a permit from the U.S. Army Corps of Engineers (USACE) for dredging and filling of WOTUS, including wetlands.

The Rivers and Harbors Act prohibits the construction of any bridge, dam, dike, causeway or other structures over or in navigable waterways of the U.S. Section 10 of the Act prohibits (1) building of any wharfs, piers, jetties, and other structures and (2) excavating or filling within navigable waters without a Section 10 permit from the USACE.

Section 438 of the Energy Independence Security Act (EISA) of 2007 (42 USC § 17094) requires all federal agencies, including the DoD, to reduce stormwater runoff from federal development projects with a footprint that exceeds 5,000 square feet. These projects shall use site planning, design, construction, and maintenance strategies for the property and maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow. Federal agencies are required to use the *Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects* to comply with the requirements of EISA Section 438. The Technical Guidance was prepared by the USEPA, EPA 841-B-09-001, December 2009 as part of stormwater management design.

Executive Order (EO) 11990 *Protection of Wetlands* is intended to minimize the destruction, loss or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands. Federal agencies are required to consider

alternatives to the use of wetland sites and to limit potential damage if an activity affecting a wetland cannot be avoided.

EO 11988 *Floodplain Management* as amended by EO 13690 *Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input*, requires federal agencies to avoid to the greatest extent possible, the long- and short-term adverse impacts associated with the occupancy and modification of floodplains, and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative.

The Federal Emergency Management Agency (FEMA) regulates floodplains, which are recognized as Special Flood Hazard Areas (SFHAs) on the Flood Insurance Rate Maps. SFHAs are defined as the area that will be inundated by a flood event having a 1 percent chance of being equaled or exceeded in any given year (commonly referred to as the 100-year floodplain).

1.5.6 Cultural Resources Regulatory Requirements

The NHPA of 1966, as amended (54 U.S.C. § 300101), established the National Register of Historic Places (NRHP) and the Advisory Council on Historic Preservation which outlines procedures for the management of cultural resources on federal property. Cultural resources can include archaeological remains, architectural structures, and traditional cultural properties such as ancestral settlements, historic trails, and places where significant historic events occurred. The NHPA requires federal agencies to consider potential impacts to cultural resources that are listed, nominated to, or eligible for listing in the NRHP; designated a National Historic Landmark; or valued by Native Americans for maintaining their traditional culture. Section 106 of NHPA requires federal agencies to consult with the appropriate State Historic Preservation Office (SHPO) if their undertakings might affect such resources. Protection of Historic and Cultural Properties (36 CFR 800 [1986]) provides an explicit set of procedures that ensures federal agencies meet their obligations under the NHPA, which includes inventorying resources and consultation with SHPO.

EO 13007 *Indian Sacred Sites* directs each federal agency that manages federal lands to “(1) accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and (2) avoid adversely affecting the physical integrity of such sacred sites.” This EO also directs each federal agency to report to the President on “procedures implemented or proposed to facilitate with appropriate Indian tribes and religious leaders.” The American Indian Religious Freedom Act (42 USC § 1996) established federal policy to protect and preserve the rights of Native Americans to believe, express, and exercise their traditional religions, including providing access to sacred sites. The Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC §§ 3001–3013) requires consultation with Native American Tribes prior to excavation or removal of human remains and certain objects of cultural importance.

In addition, DoD Instruction 4710.02 (DoD Interactions with Federally-Recognized Tribes) assigns responsibilities and provides procedures for DoD interactions with

federally recognized tribes in accordance with EO 13175 *Consultation and Coordination with Indian Tribal Governments*. This DoD Instruction requires that all DoD components shall consult with tribes whenever proposing an action that may have the potential to significantly affect protected tribal resources, tribal rights, or Indian lands.

1.5.7 Anti-Terrorism/Force Protection

DoD has developed AT/FP standards that are designed to reduce the likelihood of physical damage and mass casualties from potential terrorist attacks. Antiterrorism standards are based on DoD Instruction 2000.16 (2006), Air Force Instruction (AFI) 10-245 (2017), and AFI 31-118 (2017). These documents establish guidance and procedures to reduce the vulnerability of the installation and personnel to terrorism or terrorist activities. Unified Facilities Criteria (UFC) 4-010-01 (DoD Minimum Anti-terrorism Standards for Buildings) outlines various planning, construction, and operational standards to address potential terrorist threats.

1.5.8 Sustainability and Green Infrastructure

UFC 1-200-02 *High Performance and Sustainable Building Requirements* provides minimum unified requirements, and guidance for planning, designing, constructing, renovated, and maintaining high performance and sustainable buildings that will enhance DoD mission capability by reducing total ownership costs. The guidance seeks to improve mission capability through:

- Reduced total ownership costs of buildings
- Improved energy and water efficiency
- Enhanced building and installation performance and sustainability
- Promoting sustainable resource and environmental stewardship
- Enhanced energy and water security

The Energy Policy Act of 2005, the Energy Independence Security Act of 2007, and EO 13834 *Efficient Federal Operations* mandate Federal agencies to lead by example, promoting sustainable Federal buildings through environmentally-sound, economically-sound, and fiscally-sound design, construction, and operating decisions. The Federal requirements collectively are referred to as the “Guiding Principles”, and are detailed in “Guiding Principles for Sustainable Federal Buildings and Associated Instructions”, February 2016, which replaces “Guiding Principles for Federal High Performance and Sustainable Buildings”, 2008. Consistent with UFC program requirements, UFC 1-200-02 integrates DoD requirements (DODI 4170.11 and other DoD Policies) with High Performance and Sustainable Building Guiding Principles (HPSB GP) and industry standards for high performance and sustainable buildings. Federal agencies are required to target and report annual progress toward HPSB GP compliance, with the ultimate goal of 15% compliance of the existing building inventory by 2025.

For the Air Force, AGRAM 17-01 *Change to AF New Construction and Major Renovation Certification Requirements* provides guidance on the Air Force (AF) switch from using Leadership in Energy and Environmental Design (LEED) certification to a third-party certification following the DoD version of Guiding Principles Compliance

certification of the US Green Building Council /Green Business Certification Inc. (GBCI). This rating system has been determined to better serve as an indicator of HPSB GP Compliance (Air Force Civil Engineer Center [AFCEC. 2017]). This guidance applies to new buildings greater than 5000 SF with construction costs greater than $3 Million, and to renovations to existing buildings greater than 5000 SF with construction costs greater than $3 Million and 50% estimated replacement costs.

1.5.9 Other Executive Orders

Environmental Justice. EO 12898 *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* requires that to the greatest extent practicable and permitted by law each federal agency make achieving environmental justice part of its mission. Federal agencies are required to identify and address any disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations in the United States.

Protection of Children. EO 13045 *Protection of Children from Environmental Health and Safety Risks* recognizes children may suffer disproportionately from environmental health risks and safety risks. The EO prioritizes identification and assessment of environmental health and safety risks that may affect children. It also promotes federal agency policies, programs, activities, and standards to address environmental risks and safety risks to children.

Invasive Species. EO 13751 *Safeguarding the Nation from the Impacts of Invasive Species* calls for actions "to prevent the introduction of invasive species and provide for their control and to minimize the economic, plant, animal, ecological, and human health impacts that invasive species cause" utilizing the laws of the United States of America, including the NEPA of 1969, as amended (42 USC §4321, et seq.), the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (16 USC §4701, et seq.), the Plant Protection Act (7 USC §7701, et seq.), the Lacey Act, as amended (18 USC §42; 16 USC §3371-3378, et seq.), the Endangered Species Act of 1973, as amended (16 USC §1531, et seq.), the Noxious Weed Control and Eradication Act of 2004 (7 USC §7781, et seq.), and other pertinent statutes. EO 13751 amends and replaces the earlier EO 13112 *Invasive Species.*

Migratory Birds. EO 13186 *Responsibilities of Federal Agencies to Protect Migratory Birds* furthers the intent of the Migratory Bird Treaty Act (16 U.S.C. 703–711) to ensure the conservation of migratory birds and their habitats. The EO further ensures environmental analysis of Federal actions required by the National Environmental Policy Act of 1969 (42 U.S.C. 4321-4347) or other established environmental review processes evaluate the effects of actions and agency plans on migratory birds, with an emphasis on species of concern.

Farmland Protection. The Farmland Protection Policy Act of 1981 (7 U.S.C. 4201) requires federal agencies to identify adverse impacts to prime and/or unique farmlands within a project action area.

1.5.10 Intergovernmental Review of Federal Programs

IICEP is a federally mandated process for informing and coordinating with other governmental agencies regarding Proposed Actions. As detailed in 40 CFR § 1501.4(b) and 32 CFR 989, CEQ and USAF regulations require intergovernmental notifications prior to making any detailed statement of environmental impacts. Through the IICEP process, the ANG notifies relevant federal, state, and local agencies as well as Native American tribes and allows them sufficient time to make known their environmental concerns specific to a Proposed Action. Comments and concerns submitted by these agencies during the IICEP process are subsequently incorporated into the analysis of potential environmental impacts conducted as part of the EA.

2. DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

The *119th Wing, North Dakota Air National Guard North Installation Development Plan* (IDP) (2010) reviews the overall goals and needs for long-term planning of the North Dakota ANG base. The plan contains data related to existing and authorized facility space, an analysis of options to meet current and future mission requirements, and details of proposed projects that are recommended for construction within the five to ten-year timeframe. These proposed projects, and others developed since then, are discussed in further detail below, including alternatives that were considered and rejected.

2.2 PROPOSED ACTION AND ALTERNATIVES

2.2.1 Proposed Action

The Proposed Action's projects are discussed below and summarized in Table 1. The proposed projects include a list of new construction, renovation, demolition, and O&M (Operations and Maintenance) projects. Together, the projects in the Proposed Action further the plan to meet current security and safety standards, and to improve sustainability of the base operations as well as the ability to efficiently meet mission requirements.

2.2.1.1 New Construction

Five new construction projects are proposed to provide a better space and layout consistent with current AT/FP requirements and to meet mission and training requirements for efficient operations. New construction projects proposed include the following:

- Consolidated RPA Operations
- Troop Camp addition to Building 162
- Disaster Relief Bed down Set (DRBS) and Civil Engineering (CE) Roads & Grounds Facility
- Regional Training Site (RTS) Classroom
- Relocate base fueling station (includes new construction of islands, canopy, and sewer infrastructure)

Project descriptions are given in Table 1.

2.2.1.2 Renovations and Repairs

Nine projects involve renovating or repairing existing base facilities to meet current and future continued uses. The renovation projects include:

- Repair pavements and parking lot 217S, includes repairing and replacing lots with new parking configuration
- Repair and upgrade Base Entrance, including new fencing, lane configurations, and security features

- Renovate Building 210 for corrosion control and fuel cell functions
- Repair fire suppression Building 217 to replace fire protection system
- Repair Security Forces (SF Ops) Building 110 to provide functional, safe, efficient areas for Mission Support Group functions
- Renovate Building 217 to provide efficient space configurations and energy updates
- Repair Munitions road by reconstructing existing asphalt pavement
- Renovate Building 208 to change building function and provide maximum use of base facilities
- Repair Building 120 parking lot to bring up to AT/FP standards

Project descriptions are provided in Table 1.

2.2.1.3 Demolitions

Several projects include demolitions as a part of their scope. These demolitions include:

- Demolish Buildings 244, 245, 246, 130, and 400 Annex to reduce total building square footage on base as part of the construction of the consolidated RPA operations facility
- Demolish four existing billets for the addition of the troop camp on Building 162 to be built within part of the footprint of those billets
- Remove fencing for the construction of the DRBS and CE Roads and Grounds facility
- Demolish the existing base fuel islands in the relocation of base fueling station
- Demolish the medical wing only of Building 400

Project descriptions are provided in Table 1.

Table 1: Summary of Proposed Projects for Hector Air National Guard Base

	Project Title / Number / Execution Year	Scope	Project Need	Comments	No Action Alternative	Alternative 1	Alternative 2 (Preferred Alternative)
1	Consolidated Remotely Piloted Aircraft (RPA) Operations/ KKGA169022/ 2022	• Construct a single, 25,600 square foot (SF) consolidated facility to support RPA squadron operation in a properly sized and configured location. • Construct 48,800 SF of parking lots. • Demolish 24,000 SF of existing Buildings 244, 245, 246, 400 Annex, and 130.	Adequately sized and configured facility to support RPA operations and training required. Support sustainable base operations by reducing total building square footage.	New construction (Building 380) will take place near demolished Building 244, not in any existing building footprint. Parking lots to be added to project scope, added square footage.	Keep current configuration; fails to meet AT/FP criteria and is a non-sustainable configuration.	Renovate current facilities to include additional 2,000 SF for server rooms, modify facility to become Secure Compartmentalized Information Facility (SCIF). This would disrupt service during renovations and leaves the base with excess building space.	• Construct new RPA facility, including utilities, backup generator, pavement, parking lots, drainage, all exterior, and interior finishing and features. • Demolish Buildings 244, 245, 246, 400 Annex, and 130. *Disturbed Area:26,000 SF* *Change to Impervious Area: 23,000 SF*
2	Construct Troop Camp Addition, Building 162/ KKGA162012/ 2022	• Construct approximately 4,500 SF of facilities onto Building 162 and 75 square yards (SY) of sidewalk for billeting and living quarters, including fire suppression systems, storm shelter, and bathrooms. • Demolish 2,560 SF of existing lodging billets and 25 SY sidewalk.	Meet requirement to house 140 personnel, comply with AT/FP standards, and provide shelter in inclement weather.	This is part of a phased project implementation. Initially 4 billets to be demolished now (billets 5, 6, 9, and 10); future total is 6, with the remaining two billets not yet identified. Trees will need to be removed; will be replaced in kind (tree for tree).	Continue to use older structures. Less safe and less efficient operations.	Repair existing structures to bring them up to code, including bathrooms, inclement weather shelter, structural support (old wood frame); not cost-effective for existing structures.	• Demolish six existing billets. • Construct addition to Building 162, including fire suppression and mechanical systems. Building addition will be concrete foundation and floor with a frame superstructure. *Disturbed Area: 6,000 SF* *Change to Impervious Area: 3,000 SF*
3	Repair Base Pavements, Parking Lot 217S/ KKGA162011/ 2022	Repair concrete and asphalt surfaces for parking, traffic circulation roadways for parking, and access to Buildings 208, 215, 217, and 400 by demolishing then reconstructing pavement/ sidewalk, curbs and gutters, and utilities.	Adequate parking required. Maintain efficient and safe base operations.	Repairing and replacing lots, new parking configuration.	No update. Less sustainable operations. Does not meet standards.	No other alternative identified.	Remove poor condition pavement, grade area for proper drainage, construct new bituminous pavement, concrete sidewalks, install pavement markings, signage and other supporting features as needed, landscape adjacent areas. *Disturbed Area: 28,400 SY* *Change to Impervious Area:2,250 SY*

	Project Title / Number / Execution Year	Scope	Project Need	Comments	No Action Alternative	Alternative 1	Alternative 2 (Preferred Alternative)
4	Repair Base Entrance ATFP/ KKGA182002/ 2023	Repair and upgrade the main gate by demolishing then repaving approximately 2,500 SY asphalt pavement and installing 1,750 linear feet (LF) curbing. The main gate will include items such as denial barriers, barrier curb, and reconfigured security fencing (50 LF). Create separate inbound/ outbound lanes with drop arm.	Comply with AT/FP standards. Current situation leaves base at risk of compromise by unauthorized vehicle.	N/A	Use current configuration, safety concerns not addressed. Standards not met.	Reconstruct entire entry, including all supporting buildings and security features. Same endpoint but at higher cost.	Reconfigure Entry Control Point (ECP) to optimize lanes, add and upgrade security features such as barriers and fencing, and replace disturbed landscaping. *Disturbed Area: 2,600 SY* *Change to Impervious Area: - 140 SY*
5	Construct Disaster Relief Bed down Set (DRBS) and Civil Engineering (CE) Roads & Grounds Facility/ KKGA162009/ 2023	• Construct a facility to house roads and grounds equipment to comply with standards. Includes 8,000 SF for Roads & Grounds Building and 9,000 SF of pavement, grounds, and emergency management area. • Demolish 175 LF of fencing.	Inadequate storage for equipment, increased deterioration of equipment housed outside.	N/A	Keep current inadequate and inefficient configuration; fails to fully support mission execution.	Renovate current facilities to accommodate grounds equipment. Fails to fully support efficient operation since equipment is still decentralized and space is inadequate.	Construct 17,000 SF facility to house all grounds equipment, which includes an 8,000 SF building and 9,000 SF supporting features. *Disturbed Area: 18,000 SF* *Change to Impervious Area: 10,500 SF*
6	Construct Regional Training Site (RTS) Classroom/ KKGA192002/ 2024	Construct a 3,000 SF multi-classroom facility to hold Mission Essential Equipment Training and Air Field Damage Recovery classes.	Current facility space is inadequate for mission essential training.	Location south of Building 158.	No construction of new classroom; fails to support full mission execution since training will be compromised.	Renovate current facility to add more classroom space. Building 158 renovation would not expand existing space.	• Construct multi-classroom facility of adequate size and with all supporting features to promote successful training and ensure unit readiness. • Maintain Building 158 as supporting classroom space. *Disturbed Area: 3,000 SF* *Change to Impervious Area: 3,000 SF*

	Project Title / Number / Execution Year	Scope	Project Need	Comments	No Action Alternative	Alternative 1	Alternative 2 (Preferred Alternative)
7	Renovate Building 210 for Corrosion Control Facility/ KKGA182013/ 2021	• Renovate approximately 24,000 SF of existing hangar floor of Building 210 to a fuel cell area by providing explosion-proof fixtures in hangar area. • Construct corrosion control back shops, sanding/painting booths, upgrade the weapons back shops, and renovate admin offices.	Comply with UFC 4-211-02 requirements for decontamination efforts and separation of clean/dirty areas. Comply with Occupational Safety & Health Administration (OSHA) standards.	N/A	No update. Does not comply with UFC and OSHA standards and fails to support sustainable mission operations.	Renovate Buildings 217A and 223 where current corrosion control activities are being held; space remains inadequate to fully implement required clean/dirty separation and other essential features. Approximate renovation areas: Building 223 – 8,000 SF Building 217A – 7,000 SF	Renovate Building 210 for corrosion control and fuel cell, including renovating interior walls to isolate functions; installing proper ventilation and drainage; and providing adequate storage and supporting features to fully comply with safety and environmental requirements. *Disturbed Area: 0.1 acre* *Change to Impervious Area: 0*
8	Repair Fire Suppression Building 217/ KKGA162322/ 2022	Replace the Aqueous Firefighting Foam (AFFF) fire protection system in hangar bay of Building 217 with a High Expansion Foam (HEF) system.	Replace outdated AFFF fire protection system. Provide safe and functional facility for efficient and safe mission execution.	Drains in Building 217 connected to sanitary sewer, not storm sewer.	No update. Does not comply with safety standards.	No other alternative identified; current system is inadequate.	Replace AFFF system with HEF system in hangar bay of Building 217. *Disturbed Area: 0.1 acre* *Change to Impervious Area: 0*
9	Repair Security Forces (SF Ops) Building 110/ KKGA182004/ 2022	Repair approximately 26,500 SF of SF Ops Building 110 to comply with building codes by improving roof, mechanical system, energy efficiency, and fire suppression systems.	Provide functional, safe, efficient areas for sustainable Mission Support Group functions.	N/A	Continued use of building as-is will lead to further degradation. Safety concerns not addressed. Fails to fully support efficient mission execution.	Demolish building and construct new SF Ops building of approximately the same size to incorporate energy-efficient design and up-to-code features. Same endpoint but at higher cost.	Renovate Building 110, including utilities, mechanical systems, fire suppression systems, roofing and exterior drainage, and interior and exterior finishes as needed. *Disturbed Area: 0.1 acre* *Change to Impervious Area:* 0

	Project Title / Number / Execution Year	Scope	Project Need	Comments	No Action Alternative	Alternative 1	Alternative 2 (Preferred Alternative)
10	Renovate Building 217/ KKGA172012/ 2025	Renovate and update 99,500 SF of Building 217 to include energy updates to building envelope and systems, update and right size the rooms and shop areas to the current mission.	Facility is energy inefficient, and space configuration is inefficient for current mission. Overall facility fails to support sustainable and efficient mission execution.	N/A	Existing poor condition building systems use excess energy, current configuration fails to support efficient mission execution.	Demolish and reconstruct building at same site. Higher cost for same endpoint.	Renovate Building 217, including interior walls, interior finishes, utilities, mechanical systems, and other supporting features as needed, to support a fully functional building configuration. *Disturbed Area: 0.1 acre* *Change to Impervious Area: 0*
11	Repair Munitions Road (update design)/ KKGA182001/ 2025	Reconstruct 4,600 SY of existing asphalt pavement to make direct connection from munitions storage to flight line.	Current haul route deteriorated, poor condition pavement is a safety issue and fails to support efficient mission execution.	Portion of this area is currently gravel; pavement was in poor condition and removed. Gravel area needs to be restored to pavement. Approximately 2,300 SY is currently gravel.	No reconstruction of existing roadway; broken pavement remains in unsafe condition and fails to support efficient mission execution.	• Replace existing munitions haul route with concrete. • Re-route traffic through base thoroughfare; fails to meet safety setback distances for munitions.	Replace existing munitions haul route with asphalt pavement, including correcting drainage as needed, providing pavement markings and signage as needed, and repairing landscaping. *Disturbed Area: 4,600 SY* *Change to Impervious Area: 2,300 SY* (*original pavement is currently gravel, being restored to pavement)*
12	Relocate base fueling station (update design)/ KKGA182014/ 2025	• Demolish 1,400 SY of pavement at existing fuel islands. • Construct new islands, canopy, new pavement, and storm sewer infrastructure at a less congested area. Same amount of impervious surface as previous site.	Upgraded fuel facilities support environmental compliance.	New location to be east of Building 121; this area is less congested than current location near Building 374.	Use current location. Safety concerns about potential accidents and fuel leaks not addressed.	Relocate to north side of Building 121. Location is less accessible and would lead to less efficient operation.	Relocate fueling station to east of Building 121 by demolishing and constructing new fueling station. New facilities include pavement, containment, drainage, storage and fueling facilities, shelter canopy, security fencing, signage, and other supporting features in a one-for-one replacement with current facilities. *Disturbed Area: 3,000 SY* *Change to Impervious Area*: *0*

	Project Title / Number / Execution Year	Scope	Project Need	Comments	No Action Alternative	Alternative 1	Alternative 2 (Preferred Alternative)
13	Renovate Building 208 after construction of Building 380/ KKGA201009/ 2025	Renovate additional 10,000 SF of unused facility space that will be available after construction of Building 380.	Building 208 currently functioning as RPA operations building.	Future function of building is not yet determined.	Unused facility space. Inefficient operations.	Demolish building and move any remaining functions into other buildings.	Renovate Building 208 for new function to promote efficient operations. Additional unused facility space available after the construction of Building 380. *Disturbed Area:* 0.1 Acre *Change to Impervious Area:* 0
14	Demolish the Medical Wing of Building 400 / KKGA201010/ 2025	Demolish 9,000 SF medical wing of Building 400. (This is not the same as Building 400 Annex in Project 1.)	Facility is too small for current medical group operations.	In lieu of adding onto Medical Wing, hope to find a more suitable facility to renovate for medical group. After relocation, demolish medical wing of Building 400.	Use current facility, inefficient space for operations.	• Add onto current medical wing. Halts current operations during construction. • Addition would be approximately 1,400 SF.	Demolish medical wing of Building 400 after finding suitable facility to move medical group operations. Protect trees surrounding building. *Disturbed Area: 9,000 SF* *Change to Impervious Area: -9,000 SF (area to be left grassed)*
15	Repair Petroleum, Oil, Lubricants (POL) Parking Lot/ KKGA201011/ 2025	Repair 800 SY parking lot at Building 120 and bring it up to AT/FP standards.	Pavement in poor condition and parking lot is too close to facility to meet AT/FP standards.	N/A	No update. Continue deterioration of pavement. Not compliant with AT/FP standards, safety threat.	No other alternative identified.	Repair existing parking by removing poor condition and poorly located pavement; grading as needed; repaving; installing curbing, signage and markings; and repairing adjacent landscaping. *Disturbed Area: 800 SY* *Change to Impervious Area: 0*

2.2.2 Alternatives Considered for Further Analysis

2.2.2.1 No Action Alternative

Under the No Action Alternative, the 119 WG would not construct the consolidated RPA operations, Troop camp addition, DRBS and CE Roads & Grounds facility, RTS Classroom, and the fueling station. In addition, several existing pavements and base entrance repairs, several building renovations, and demolitions would not be completed.

No action means:

- The base would continue to not fully meet security and safety requirements.
- Existing facilities would not be maintained in optimal condition to fully support mission execution or be properly configured for efficient operations.

For these reasons, the No Action Alternative is not an acceptable alternative. Therefore, the No Action Alternative would not meet the needs of the 119 WG; however, the EA analyzes this alternative per CEQ regulations and as a baseline to compare potential impacts of the Proposed Action.

2.2.2.2 Alternative 1

Alternatives to the selected plan are summarized in Table 1. Repairs to pavements and fire suppression systems are required maintenance to sustain functionality and safety. Therefore, no alternatives to these options were listed other than the No Action Alternative.

Repairs and Renovations

The repair and renovation project alternatives include demolishing existing buildings and constructing new facilities. This would allow the facilities to incorporate energy-efficient designs and newer building codes and safety features; however, it would be a higher cost and inefficient use of funds.

Repair/renovation projects with an Alternative 1 that would demolish and reconstruct a building are:

- Project 4 Repair Base Entrance ATFP
- Project 9 Repair Security Forces (SF Ops) Building 110
- Project 10 Renovate Building 217
- Project 13 Renovate Building 208

Repair/renovation projects with an Alternative 1 are:

- Project 7 Renovate Building 210 for Corrosion Control Facility: Renovate Buildings 217A and 223 instead; however, the space would remain inadequate.
- Project 11 Repair Munitions Road: Replace route with concrete rather than asphalt and reroute traffic through base thoroughfare; however, this does not meet munitions setback requirements.

New Construction and Add/Alter

Alternatives to the new construction of various facilities include reconstruction or renovation at or near current locations. These alternatives would 1) lack sufficient space

to house buildings to meet current mission needs, 2) are not cost effective, and 3) would disrupt service and operations during renovations.

Alternative 1 for new construction and add/alter projects include:

- Project 1 Consolidated RPA Operations (renovation resulting in service disruption and excess building space)
- Project 2 Construct Troop Camp Addition, Building 162 (repair that is not cost effective)
- Project 5 Construct DRBS and CE Roads & Grounds Facility (renovation resulting in decentralized equipment and inadequate space)
- Project 6 Construct RTS Classroom (renovation that would still result in lack of sufficient space)

Demolition

Alternative 1 to Project 14 Demolish the Medical Wing of Building 400 includes constructing an addition to the current facility instead of using a different facility for the function. However, this addition would disrupt operations during construction and the addition would be in an undesirable location.

2.2.3 Preferred Alternative

The Preferred Alternative supports the long-term base IDP by upgrading facilities to meet force protection, modern mission, and training requirements. Implementation of this plan would support sustainable mission execution by constructing and renovating facilities that fully meet security and operation requirements. Pictures of project locations are provided in Figure 3 to Figure 22.

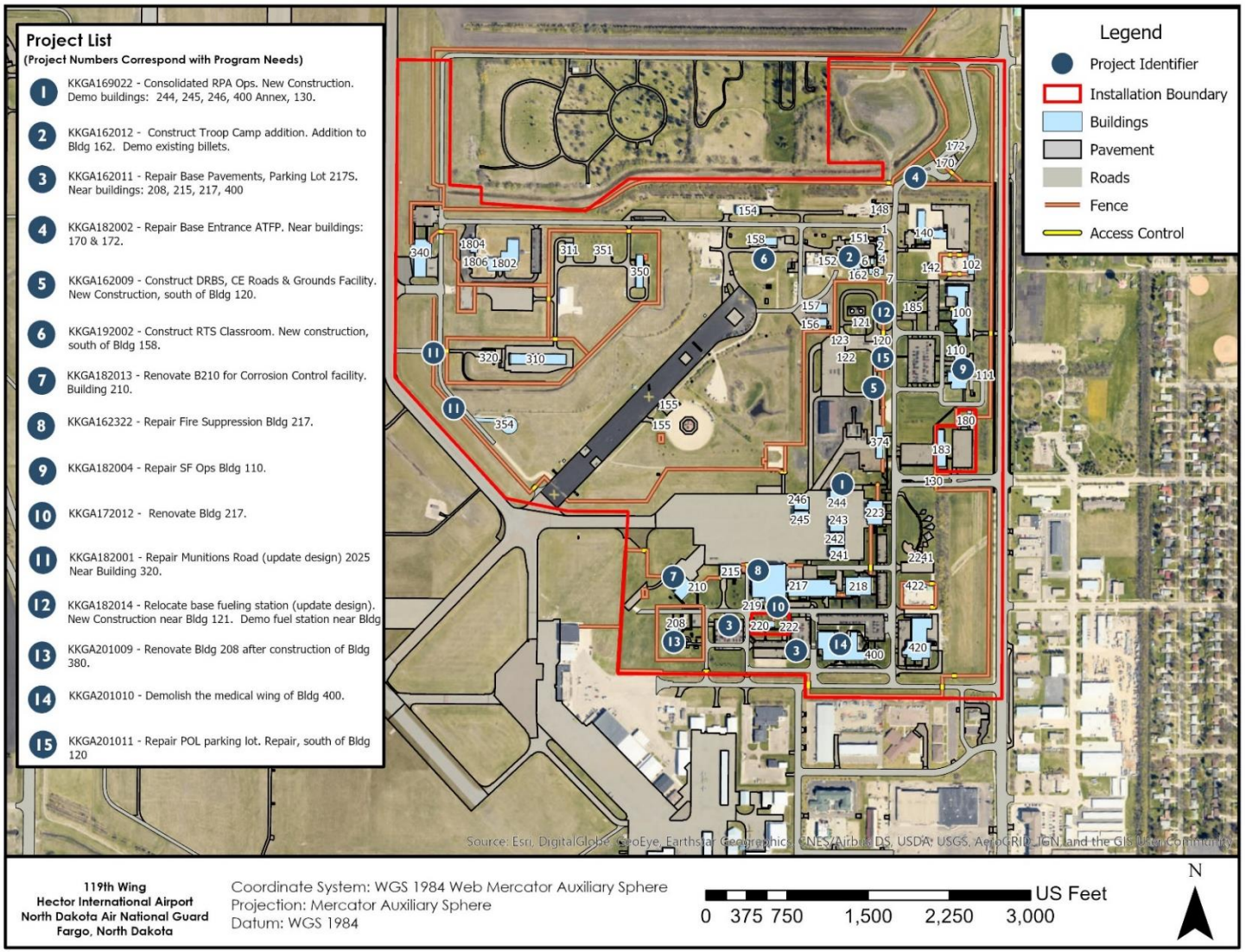

Figure 3: Map of the Preferred Alternative projects at Hector IAP in Fargo, North Dakota. Each project number corresponds to a project listed in Table 1.

Figure 4: Current open field, proposed Consolidated RPA Operations site (Project #1, KKGA169022) and hangars to be demolished (Buildings 244, 245, and 246).

Figure 5: Building 130 to be demolished as part of Project #1, KKGA169022.

Figure 6: Former Finance section of Building 400 Annex to be demolished as part of Project #1, KKGA169022.

Figure 7: Proposed Troop Camp Addition construction site (Project #2, KKGA162012) and existing billets to be demolished.

Figure 8: Repair Base Pavements, Parking Lot 217S (Project #3, KKGA162011) existing parking lot.

Figure 9: Repair Base Pavements, Parking Lot 217S (Project #3, KKGA162011) proposed location for parking lot reconfiguration.

Figure 10: Base Entrance (Project #4, KKGA182002), view from north. Repair and upgrade the main gate to comply with AT/FP standards.

Figure 11: Current open space and paved surface, proposed location for DRBS, CE Roads & Grounds Facility (Project #5, KKGA162009).

Figure 12: Current open field, proposed location for constructing RTS Classroom (Project #6, KKGA192002).

Figure 13: Building 210 to be renovated (Project #7, KKGA182013) for Corrosion Control Facility function.

Figure 14: Part of existing AFFF fire suppression system in Building 217 (Project #8, KKGA162322) to be replaced with HEF system.

Figure 15: SF Ops Building 110 (Project #9, KKGA182004) to be renovated.

Figure 16: Building 217 (Project #10, KKGA172012) to be renovated.

Figure 17: Existing conditions of munitions road (Project #11, KKGA182001), approximately 2,300 SY of munitions gravel road is to be paved with asphalt.

Figure 18: Existing location of base fueling station (Project #12, KKGA182014).

Figure 19: Proposed location for fueling station (Project #12, KKGA182014).

Figure 20: Building 208 to be renovated (Project #13, KKGA201009) for new function.

Figure 21: Medical wing of Building 400 (Project #14, KKGA201010) to be demolished. View facing southeast.

Figure 22: Existing conditions of parking lot south of POL building (Project #15, KKGA201011) to be repaired.

3. AFFECTED ENVIRONMENT

This section describes relevant existing environmental conditions for resources potentially affected by implementing the Proposed Action/Preferred Alternative, Alternative 1, and the No Action Alternative. In compliance with guidelines established by the NEPA, CEQ regulations, AFI 32-7061, the description of the affected environment focuses on only those aspects potentially subject to impacts. The affected environment description is limited to the existing base (119 WG, which is adjacent to Hector IAP) and the adjacent lands located in Cass County, North Dakota.

Resources analyzed in this document include safety, air quality, noise, land use, geological resources, water resources, biological resources, transportation and traffic circulation, visual resources, cultural resources, socioeconomics (including environmental justice), and hazardous and non-hazardous materials and waste. Resources not analyzed include airspace management and air safety because the Proposed Action is not directly related to aircraft maneuvers.

3.1 SAFETY

3.1.1 Definition of Resource

A safe environment is one in which there is no, or optimally reduced, potential for death, serious bodily injury or illness, or property damage. Human health and safety addresses 1) workers' health and safety during demolition activities and facilities construction, and 2) public safety during demolition and construction activities and during subsequent operation of those facilities.

Construction work site safety is largely a matter of adherence to regulatory requirements imposed for the benefit of employees and implementation of operational practices that reduce risks of illness, injury, death, and property damage. The health and safety of onsite military and civilian workers are safeguarded by numerous DoD and Air Force regulations designed to comply with standards issued by the Occupational Safety and Health Administration (OSHA) and the USEPA.

Siting requirements for explosive materials storage (e.g., munitions) and handling facilities are based on safety and security criteria. Air Force Manual (AFM) 91-201 (2018), *Explosives Safety Standards*, requires that defined distances, known as quantity-distance (QD) arcs, be maintained between these and a variety of other types of facilities. These QD arcs are determined by the type and quantity of explosive materials to be stored; each explosive material storage or handling facility has QD arcs extending outward from its sides and corners for a prescribed distance. Within QD arcs, development is either restricted or altogether prohibited in order to maintain safety of personnel and minimize the potential for damage to other facilities in the event of an accident. QD arcs for multiple facilities at a single site may overlap, leaving a series of arcs as edges of the safety zone. Explosive materials storage and build-up facilities must be located in areas where security can be assured.

3.1.2 Existing Conditions

The North Dakota Air National Guard leases 258 acres from the City of Fargo Municipal Airport Authority on the east side of the Hector IAP airfield. The base itself is fenced and access is controlled through an ECP. The main ECP is located on 32nd Avenue NE adjacent to the intersection of University Drive.

The only mission with a need for high explosives is Explosive Ordnance Disposal (EOD), which requires a small amount of C4 for ordnance disposal and training purposes. Currently, MQ-9 aircraft require Hazard Class/Division 1.3 and 1.4 munitions (limited to chaff and flares), which must be inspected and stored at the installation. Figure 23 shows the storage areas and corresponding QD arcs located in the northwest portion of the installation. One proposed project, Repair Munitions Road, is located near the munitions storage areas and a section of the road falls within the QD arc.

Military installations must comply with AT/FP standards. Antiterrorism standards are based on DoD Instruction 2000.16 (2006), AFI 10-245 (2017), and AFI 31-118 (2017). These documents establish guidance and procedures to reduce the vulnerability of the installation and personnel to terrorism or terrorist activities. Design criteria provide additional standards. UFC 4-010-01, DoD Minimum Anti-terrorism Standards for Buildings, and the 9 February 2012 update (UFC 4-010-02) outline various planning, construction, and operational standards to address potential terrorist threats. A key element of AT/FP standards is the establishment of minimum setbacks and other security standoffs between mass gathering facilities and potentially non-secure adjacent uses (e.g., parking lots, areas outside of security fences, etc.). AT/FP setbacks typically extend outward from the sides and corners of facilities for a prescribed distance (e.g., 45 meters [147.6 feet]); development is either limited or altogether prohibited in such setback areas. Additional AT/FP standards address other facility design and operational considerations, including internal building layout, facility access and security, site circulation, and emergency mass notification.

For the 119 WG, multiple facilities are presently in violation of AT/FP standards related to parking setbacks, facilities construction, and security. Currently, parking setback violations exist for Building 208, parking lot 217S, and the POL parking lot. The Troop Camp billets are in violation of facilities construction due to their construction predating AT/FP standards. The Base ECP violates security AT/FP standards to be able to prevent unauthorized access. The AT/FP standard violations will be remedied with the implementation of the proposed actions.

Bird Aircraft Strike Hazard (BASH) is defined as the threat of aircraft collision with birds or other wildlife during flight operations and is a safety concern at all airfields due to the frequency of aircraft operations and the possibility of encountering birds at virtually all altitudes. Most birds fly close to ground level; correspondingly, more than 95 percent of all reported bird-strikes occur below 3,000 feet AGL. At most military installations, about half of reported bird strikes occur in the immediate vicinity of the airfield and another 25 percent occur during low-altitude local training exercises.

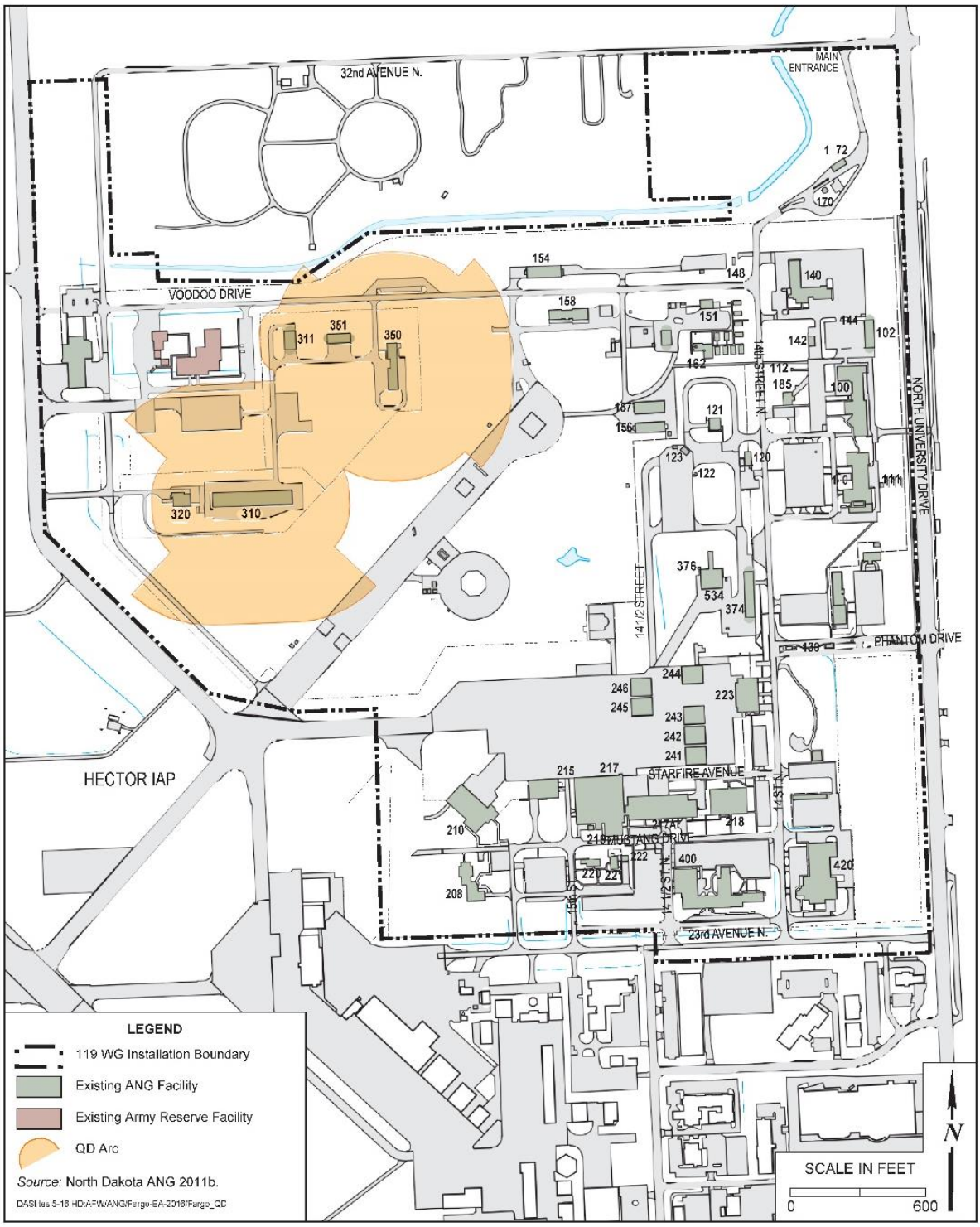

Figure 23: QD Arcs for 119 WG

Bird-aircraft strikes present a potential threat to Hector IAP and 119 WG aircraft and aircrew safety due to resident bird species as well as the Hector IAP's location within the Mississippi Flyway, a bird migration pathway in North America. According to the most recent available data, between 2007 and 2018 a total of 20 BASH events occurred at the installation; however, no events occurred between 2013 and 2018. The Wing's mission changed to operating RPAs in 2013, contributing to the decrease in BASH events (ANG 2018b). The 119 WG's BASH Plan identifies specific sources of bird-aircraft strikes, including migratory flight patterns and proximity to nearby agricultural areas. The document also outlines measures to reduce BASH during airfield and flight operations as well as the integration of BASH reduction into long-term maintenance and construction planning activities.

3.1.3 Construction-Related Impact

Construction work site safety is largely a matter of adherence to regulatory requirements imposed for the benefit of employees and implementation of operational practices that reduce risks of illness, injury, death, and property damage. The health and safety of onsite military and civilian workers are safeguarded by numerous DoD and Air Force regulations designed to comply with standards issued by the OSHA and the USEPA, such as AFI 48-145 Occupational and Environmental Health Program (2014) and Air Force Policy Directive (AFPD) 90-8 Environment, Safety & Occupational Health Management and Risk Management (2017). All contractors performing construction activities at the ANG portion of Hector IAP are responsible for meeting OSHA standards and for protecting their employees during contracted operations (AFI 48-145, 2014).

3.2 AIR QUALITY

3.2.1 Definition of Resource

Air quality in a given location is described in terms of concentrations of various substances in the atmosphere known as "criteria pollutants," expressed in units of parts per million (ppm), milligrams per cubic meter (mg/m^3), or micrograms per cubic meter ($\mu g/m^3$). Air quality is influenced by the type and amount of pollutants in the atmosphere, the size and underlying topography of the air basin, and local and regional meteorological conditions. The significance of a pollutant concentration is determined by comparison with federal air quality standards. The USEPA has established the NAAQS (Table 10).

NAAQS are divided into two sets: primary and secondary. Primary standards are based entirely on public health considerations. Secondary standards protect public welfare, addressing damage to soils, water, crops, vegetation, man-made materials, domestic animals, wildlife, weather, visibility, climate, property, transportation, and human health and comfort. NAAQS include maximum concentration levels for six criteria pollutants: ozone (O_3), carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter less than 10 microns in diameter (PM10), and lead (Pb). The standard was developed for PM10 after it was established that only particles of less than 10 microns in diameter are capable of entering small passages in lungs. There is also a standard for PM2.5 (particulate matter less than 2.5 microns in diameter).

Table 2: National Ambient Air Quality Standards (NAAQS)

Pollutant		Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxide (CO)		Primary	8 hrs	9 ppm	Not to be exceeded more than once per year.
			1 hour	35 ppm	
Lead (Pb)		Primary and Secondary	Rolling 3 month average	0.15 $\mu g/m^3$ (1)	Not to be exceeded.
Nitrogen Dioxide (NO_2)		Primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years.
		Primary and Secondary	1 year	53 ppb (2)	Annual Mean
Ozone (O_3)		Primary and Secondary	8 hours	0.070 ppm (3)	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years.
Particle Pollution (Particulate Matter, PM)	PM2.5	Primary	1 year	12.0 $\mu g/m^3$	Annual mean, averaged over 3 years.
		Secondary	1 year	15 $\mu g/m^3$	Annual mean, averaged over 3 years.
		Primary and Secondary	24 hours	35 $\mu g/m^3$	98th percentile, averaged over 3 years.
	PM10	Primary and Secondary	24 hours	150 $\mu g/m^3$	Not to be exceeded more than once per year on average over 3 years.
Sulfur Dioxide (SO_2)		Primary	1 hour	75 ppb (4)	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years.
		Secondary	3 hours	0.5 ppm	Not to be exceeded more than once per year.

* Source - Clean Air Act, Title 42 U.S.C. Section 7401-7671, USEPA Website, September 2019

(1) In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 $\mu g/m^3$ as a calendar quarter average) also remain in effect.

(2) The level of the annual NO_2 standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level.

(3) Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O_3 standards additionally remain in effect in some areas. Revocation of the previous (2008) O_3 standards and transitioning to the current (2015) standards will be addressed in the implementation rule for the current standards.

(4) The previous SO_2 standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2)any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO2 standards or is not meeting the requirements of a State Implementation Plan (SIP) call under the previous SO_2 standards (40 CFR 50.4(3)). A SIP call is an EPA action requiring a state to resubmit all or part of its SIP to demonstrate attainment of the required NAAQS.

3.2.2 Existing Conditions

3.2.2.1 Climate

North Dakota lies in the northern Great Plains, between the moist eastern U.S. and the semi-arid western U.S. The state has a continental climate, and experiences wide temperature extremes. Average temperatures range from 15 °F during January, to 72 °F in July, with daily extremes of over 100 °F occurring in the summer. Annual precipitation averages around 22 inches per year, with most precipitation falling in the summer during thunderstorm events. In general, the area does not receive substantial snowfall,

however, high winds contribute to the extreme nature of winter storms. The Red River valley, including Fargo, is a flood-prone area with snowfall and spring storms contributing to the high flows (NOAA, 2017).

North Dakota has experienced large temperature increases over the last several decades, with temperatures warming approximately 0.26 ˚F per decade. This increase is evident in the winter, which has fewer occurrences of extremely cold days since 1980. Precipitation is expected to increase during the colder seasons, with an increase in heavy precipitation events. This is combined with generally warmer soil temperatures, higher rates of evaporation, and less soil moisture overall (NOAA, 2017).

3.2.2.2 Local Air Quality

The North Dakota ANG is located in Cass County, North Dakota. This area is considered by USEPA to be in attainment with current ambient air quality standards for all criteria pollutants and is not in a maintenance area. According to the USEPA's Air Quality Index Summary Report, in 2019 Cass County had 327 days of good air quality, 34 days of moderate air quality, and one day of unhealthy air quality (USEPA, 2020). The Proposed Action will occur in eastern Cass County, North Dakota in an area bordered on the east by the Red River and Clay County, Minnesota. Clay County is also in attainment with all currently applicable NAAQS (USEPA, 2020).

3.2.2.3 Emissions at Installation

The base currently holds a Minor Source Permit to Operate ((PTO) No. O95001), issued January 7, 2020 (North Dakota Environmental Quality (NDEQ), 2020). The permit lists the following emissions units: diesel engine emergency generators of various sizes and manufacturers at buildings 148, 208, 218, 219, and 340; spray booths; fuel storage tanks for various types of fuels and oils, a refueling station, and fuel transfer operations; two abrasive blasting units; several natural gas fired boilers and heaters; pressure washer units; and propane burners. These emissions sources do not include mobile sources such as vehicles and aircraft, which are indicated as sources in the emissions survey but are not listed in the operating permit. Of the potential sources listed in the operating permit, the generators were identified in the emissions survey as the largest potential sources of air pollutants. The base operates well within the required permit limitations.

3.3 NOISE

3.3.1 Definition of Resource

Noise is defined as unwanted sound or, more specifically, as any sound that interferes with communication, is intense enough to damage hearing, or is otherwise annoying (Federal Interagency Committee on Noise [FICON], 1992). Human response to noise varies according to the type and characteristics of the noise source, distance between the noise source and the receptor, sensitivity of the receptor, and time of day. Due to wide variations in sound levels, sound is measured in decibels (dB), which is based on a logarithmic scale (e.g., 10-dB increase corresponds to a 100-percent increase in perceived sound). Sound measurement is further refined by using an A- weighted decibel scale (dBA) that emphasizes the range of sound frequencies that are most

audible to the human ear (between 1,000 and 8,000 cycles per second). Table 3 identifies typical noise levels associated with common indoor and outdoor activities and settings.

Table 3: Sound Levels of Typical Noise Sources

Activity	Sound Levels (dBA)
Normal breathing	10
Whispering at 5 feet	20
Soft whisper	30
Rainfall	50
Normal conversation	60
Vacuum cleaner	60 – 85
Power lawn mower	65 – 95
Tractor	90
Snowmobile	100
Ambulance Siren	120
Chain saw	125
Jet engine taking off	150
Artillery fire at 500 feet	150
Fireworks at 3 feet	162
Handgun	166
Shotgun	170

Source: Center for Hearing and Communication, 2019.

It is DoD Policy (DoDI 4715.13) to minimize effects on the human environment resulting from noise, while maintaining military readiness. The Air Force sets a criterion sound level for an 8-hour exposure of 85 dBA, as the basis for a noise standard (AFI 48-127, 2016). Limiting values for noise are based on both sound level and exposure time. These are summarized in Table 4.

Table 4: Limiting Values for Unprotected Noise Exposures

Sound Level (dBA)	Time (minutes)
Over 115	Forbidden
115	0.5
110	1.5
100	15
90	151
85	480
80	24 hours
Below 80	No limit

Adapted from AFI 48-127, 2016.

3.3.2 Existing Conditions

3.3.2.1 Aircraft Activity

The Air Force noise program focuses on noise from the operation of aircraft, small arms, munitions, and explosives that may affect people, animals (domestic or wild), or structures on or in areas within close proximity of a military installation range, within Special Use Airspace and Airspace for Special Use (AFI 32-1015, 2019). Current noise sources at Hector IAP consist primarily of aircraft noise from the airport. The area surrounding Hector IAP is characteristic of a low-density agricultural, commercial, and suburban environmental setting, that typically experiences noise associated with vehicles on local highways or agricultural activities. Much of the area surrounding Hector IAP is lowly populated with the aircraft activity being the dominant noise producer in the area.

Military aircraft operations on the 119 WG installation include MQ-9 Reaper, an RPA. In August 2007, an analysis was conducted of the flying operations at Hector IAP (i.e., military, general aviation, and commercial) including types of aircraft used, flight patterns, variations in altitude, power settings, number of operations, and hours of operation. This Noise Exposure Mapping and Analysis Report found that there would be no significant effects resulting from MQ-9 Reaper operations in the vicinity of Hector IAP (ANG, 2007). For this EA, a separate noise analysis for aircraft noise was not performed since baseline levels are not expected to change under the Proposed Action.

3.3.2.2 Ground-Based Activity

Ground-based noise producers include construction and maintenance equipment which include heavy trucks and snow removal equipment. Additionally, personal vehicles are used by personnel for on base transportation. Noise levels experienced off the base are not expected to change at this time. Future base development may require a new noise study and the issue should be revisited as installation planning progresses.

3.4 LAND USE

3.4.1 Definition of Resource

Land use can be separated into two primary categories: natural and human modified. Natural land cover includes woodlands, rangeland, grasslands, and other open or undeveloped areas. Human-modified land use includes residential, commercial, industrial, communications and utilities, agricultural, institutional, recreational, and generally other areas developed from a natural land cover condition. Land use is regulated by management plans, policies, regulations, and ordinances (i.e., zoning) that determine the type and extent of land use allowable in specific areas and protect specially designated or environmentally sensitive areas.

Installation planning requirements include siting criteria to ensure compatible land uses (AFI 32-1015, 2019). The Air Installations Compatible Use Zones Program includes the following objectives:

- Assist local, regional, state and federal officials in protecting the public health, safety, and welfare by promoting long-term land use compatible with military operations.
- Protect Air Force operational capability from the effects of land and water use that are incompatible with Air Force operations.
- Manage mission encroachment while influencing mission sustainability by promoting compatible land use in the community.

The program requires new facilities and land uses to be consistent with the land use compatibility recommendations in AFH 32-7084 (2017), which includes designation of clear zones, wildlife exclusion zones, historical preservation requirements and other special land protections.

3.4.2 Existing Conditions

According to the City of Fargo's zoning map (Figure 24) and zoning code, the 119 WG's facilities are zoned as Public/Institutional (P/I) (City of Fargo, 2020). The P/I district is intended to accommodate uses of a governmental, civic, public service or quasi-public nature, including major public facilities. It offers an alternative (versus residential) zoning classification for public and institutional uses, thereby increasing development predictability within residential neighborhoods. The P/I zoning classification is not intended for commercial or industrial developments. Developments in the P/I zone are subject to site plan approval if within 300 feet of a residential area. Several dimensional standards apply to developments in the P/I district.

A variety of land uses surround the 119 WG's facilities. Several parcels to the north and west of Hector IAP are unincorporated and unzoned. The few parcels to the north of the airport that are incorporated are zoned as General Industrial (GI) districts. Parcels to the south and east of the airport are largely zoned for Agriculture (AG) and Single Dwelling (SR-2). There is no floodplain boundary in the vicinity of the 119 WG's facilities.

Fargo's downtown district is approximately a mile to the southeast of Hector IAP. The city's land use scheme allows for mixed-use, higher density land uses in the downtown district and in the vicinity of North Dakota State University. Though there are several multiple dwelling residential zones in the city, low-density land uses characterize the city's zoning scheme. The municipalities of West Fargo, Oakport, Dilworth and Prairie Rose border Fargo; all communities are smaller than Fargo in population and geographic size (U.S. Census Bureau, 2020).

This Proposed Action conforms to the subject parcel's zoning in that it is in conformance with the Public/Institutional (P/I) zone.

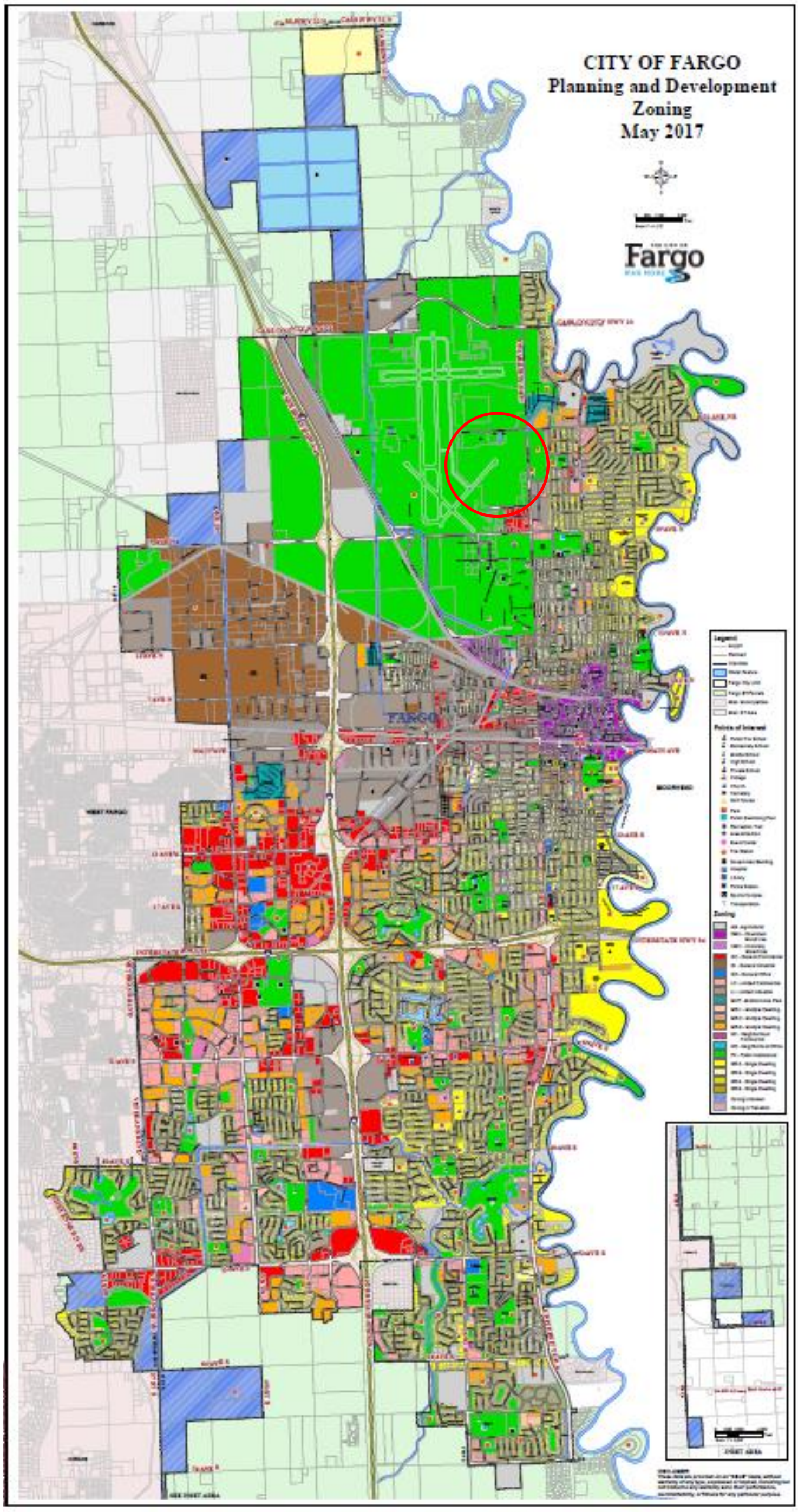

Figure 24: Zoning near 119 WG, Fargo, North Dakota.

3.5 GEOLOGICAL RESOURCES

3.5.1 Definition of Resource

Geological resources consist of surface and subsurface materials and their properties. Principal geologic factors influencing the ability to support structural development are seismic properties (i.e., potential for subsurface shifting, faulting, or crustal disturbance), soil stability, and topography.

Topography is the change in elevation over the surface of a land area. An area's topography is influenced by many factors, including human activity, underlying geologic material, seismic activity, climatic conditions, and erosion. A discussion of topography typically encompasses a description of surface elevations, slope, and distinct physiographic features (e.g., mountains) and their influence on human activities.

The term soil, in general, refers to unconsolidated materials overlying bedrock or other parent material. Soil structure, elasticity, strength, shrink-swell potential, and erodibility all determine the ability for the ground to support man-made structures. Soils typically are described in terms of their complex type, slope, physical characteristics, and relative compatibility or constraining properties with regard to particular construction activities and types of land use.

3.5.2 Existing Conditions

Most of the soils in Cass County are characterized by a thick black organic topsoil and limey subsoil. Fargo clay is the dominant soil type, and along with the Bearden clay, covers the greater part of the lake plain. The portion of Cass County in and around Fargo consist of Fargo clay. A small buried outwash deposit underlies an area of about 6 square miles in the vicinity of Fargo. This deposit is overlain by till and rests either on till or granite. Generally, its top lies between 90 and 150 feet below land surface. The deposit consists of sand and fine gravel and ranges in thickness from 0 to 160 feet (North Dakota Geological Survey, 1968).

Dominant soils in the area are Fargo-Ryan, thick solum silty clays and Fargo silty clay. Both are poorly drained and formed from clayey glaciolacustrine deposits. They are classified as silt of high plasticity, elastic silt and clay of high plasticity, and fat clay (USDA, 2020).

3.6 WATER RESOURCES

3.6.1 Definition of Resource

Water resources analyzed in this study include surface and groundwater resources. The quality and availability of surface and groundwater, and the potential of an area for flooding are addressed in this section. Surface water resources include those defined by the WOTUS in 33 CFR 328.3(s) that are important for a variety of reasons including economic, ecological, recreational, and human health. WOTUS include the following:

- All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

- All interstate waters including interstate wetlands;
- All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
    - Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
    - From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
    - Which are used or could be used for industrial purposes by industries in interstate commerce.
- All impoundments of waters otherwise defined as waters of the United States under this definition;
- Tributaries of waters identified in bullet points 1 through 4 of this section;
- The territorial sea; and,
- Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in bullet points 1 through 6 of this section.

Groundwater comprises the subsurface hydrologic resources of the physical environment and is an essential resource in many areas; groundwater is commonly used for potable water consumption, agricultural irrigation, and industrial applications. Groundwater properties are often described in terms of depth to aquifer, aquifer or well capacity, water quality, and surrounding geologic composition.

Wetlands are defined by the USACE and USEPA as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas” (33 CFR § 328.3 [b]) and are protected as a subset of the WOTUS under section 404 of the CWA. Wetlands provide a variety of functions including groundwater recharge and discharge; flood flow alteration; sediment stabilization; sediment and toxicant retention; nutrient removal and transformation; support of aquatic and terrestrial diversity and abundance; and uniqueness. Three criteria are necessary to define wetlands: vegetation (hydrophytes), soils (hydric), and hydrology (frequency of flooding or soil saturation). Hydrophytic vegetation is classified by the estimated probability of occurrence in wetland versus upland (non-wetland) areas throughout its distribution. Hydric soils are those that are saturated, flooded, or ponded for sufficient periods during the growing season and that develop anaerobic conditions in their upper horizons (i.e., layers). Wetland hydrology is determined by the frequency and duration of inundation and soil saturation; permanent or periodic water inundation or soil saturation is considered a significant force in wetland establishment and proliferation. Jurisdictional wetlands are those subject to regulatory authority under Section 404 of the CWA and Executive Order 11990, *Protection of Wetlands*.
Other issues relevant to water resources include watershed areas affected by existing and potential runoff and hazards associated with 100-year floodplains.

Floodplains are belts of low, level ground present on one or both sides of a stream channel and are subject to either periodic or infrequent inundation by flood water. Inundation dangers associated with floodplains have prompted Federal, state, and local legislation that limits development in these areas largely to recreation and preservation activities. Water resources are also important because of their significant role in determining historical migratory and settlement patterns of virtually all mammals; influence on nesting and migratory activities of many bird species; contribution to the evolution of landforms through their roles in the erosion process; and their participation in critical global systems including hydrologic cycle, temperature modification, and oxygen replenishment.

3.6.2 Existing Condition

3.6.2.1 Surface Water

Regionally, the primary surface feature in the area is the Red River of the North, which is located approximately one-mile northeast of the 119 WG installation and runs along the North Dakota-Minnesota state line (Figure 25). The Red River of the North flows north to its terminus in Lake Winnipeg. Along the western perimeter of Hector IAP, runs a drainage channel (County Drain 10) that flows north into the Red River approximately three miles north of the installation. Storm water drainage ditches from the Hector IAP runways and taxiways flow into a modified creek channel along the northern perimeter of the installation and Springvale Cemetery. Part of this modified creek channel sits on installation property in the northeast corner. The creek eventually terminates at the Red River approximately one-mile northeast of installation property. An intermittent drainage ditch runs northeast from the east side of the installation and connects to the modified creek channel. Other on-installation drainages include a series of storm sewers, culverts, and open drainage ditches. All on-installation drainages eventually flow into the Red River (ANG, 2010).

According to the North Dakota 303d list of impaired waters, there are no impaired surface waters on the installation. The Red River of the North, 1 mile east of the installation, is listed as impaired for fish consumption due to the pollutant methylmercury (North Dakota, 2018). Sources of methylmercury in the Red River are nonpoint-source coal burning and waste incineration (USGS, 1998).

Figure 25: Surface Waters near 119 WG

The North Dakota Department of Health (NDDH) has issued a NPDES general storm water permit for industrial storm water at the 119 WG installation. The installation also operates under a SWPPP which provides engineering and management strategy designed to improve the quality of storm water runoff from the installation and thereby improve the quality of receiving waters (NDDH, 2010). As of September 2020, the installation has a SWPPP for the RTS construction.

3.6.2.2 Ground Water

There are three large aquifers in Cass County: the Page Aquifer, the Sheyenne Delta Aquifer, and the West Fargo Aquifer System (WFAS). Two WFAS aquifer units, the Fargo and West Fargo Aquifers, are in the vicinity of Hector IAP and the 119 WG installation. The aquifers are located 60 to 90 feet beneath impermeable clay sediments in glacial till deposits. While the clay sediments limit aquifer recharge, they also reduce the likelihood of groundwater contamination (Cass County Government, 2018). Groundwater in the area generally flows to the east, toward the Red River of the North. The water quality is hard to very hard, with high salinity and low sodium content and availability is limited near the 119 WG installation.

There are no drinking water groundwater wells located within 3 miles of the installation property boundaries (NDDH, 2015). Drinking water is supplied to the installation by the City of Fargo. There are groundwater monitoring wells located on the installation (ANG, 2017b). See Section 3.12.2 for a discussion of potential contaminants in groundwater.

3.6.2.3 Wetlands

According to a Waters of the U.S. Delineation conducted in 2020, a total of five wetlands were identified at the 119 WG installation (Figure 26). Two wetlands, totaling 0.96 acres, were determined likely to be jurisdictional under Section 404 of the Federal Clean Water Act. The first wetland, located in the northeastern portion of the property, is part of the modified creek channel mentioned in Section 3.6.2.1 which drains into the Red River to the northeast. The second potentially jurisdictional wetland is in the northwest portion of the property and includes a section of the same modified creek channel which connects to Wetland 1 via a portion of the creek channel which flows through a neighboring property. Three wetlands, totaling 0.9 acres, did not appear to have surficial connections to other wetlands or surface water resources, and are ephemeral depressions that collect water in response to precipitation. As such these wetlands are presumed to be isolated and are therefore non-jurisdictional (Pate, 2020). The modified creek channel, on which Wetland 1 and Wetland 2 are centered, was delineated as 1,926.6 linear feet of potential WOTUS. The channels are connected to and eventually flow into the Red River off the installation.

There are no wetlands located in the locations of the Proposed Action, however Wetland 1 is located to the west of the ECP, near Project #4 – Repair of Base Entrance ATFP.

3.6.2.4 Floodplains

Based on the Flood Insurance Rate Maps prepared by the Federal Emergency Management Agency (FEMA), they indicate the presence of floodplains at the 119 WG installation, but they do not have flood areas on the base. The entire installation is classified as Zone X (FEMA, 2020). Zone X floodplains are defined as areas within the limits of the 500-year flood; areas of 100-year flood with average depths of less than 1 foot or drainage areas less than 1 square mile; and/or, areas protected by levees from 100-year floods (FEMA, 2020). Figure 27 shows the FEMA flood map. Areas of Fargo closer to the Red River have a higher flood risk.

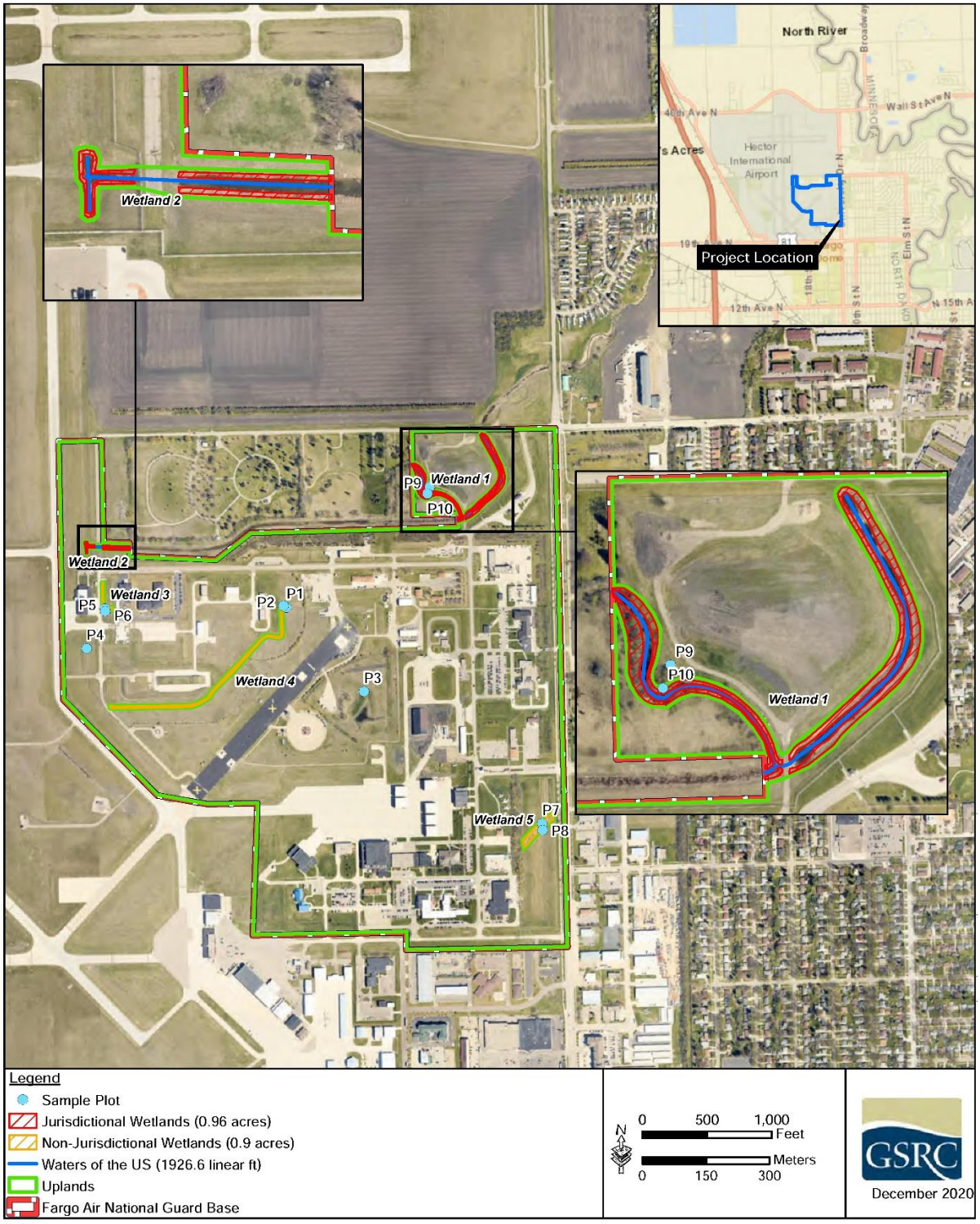

Figure 26: Wetlands on 119 WG Installation

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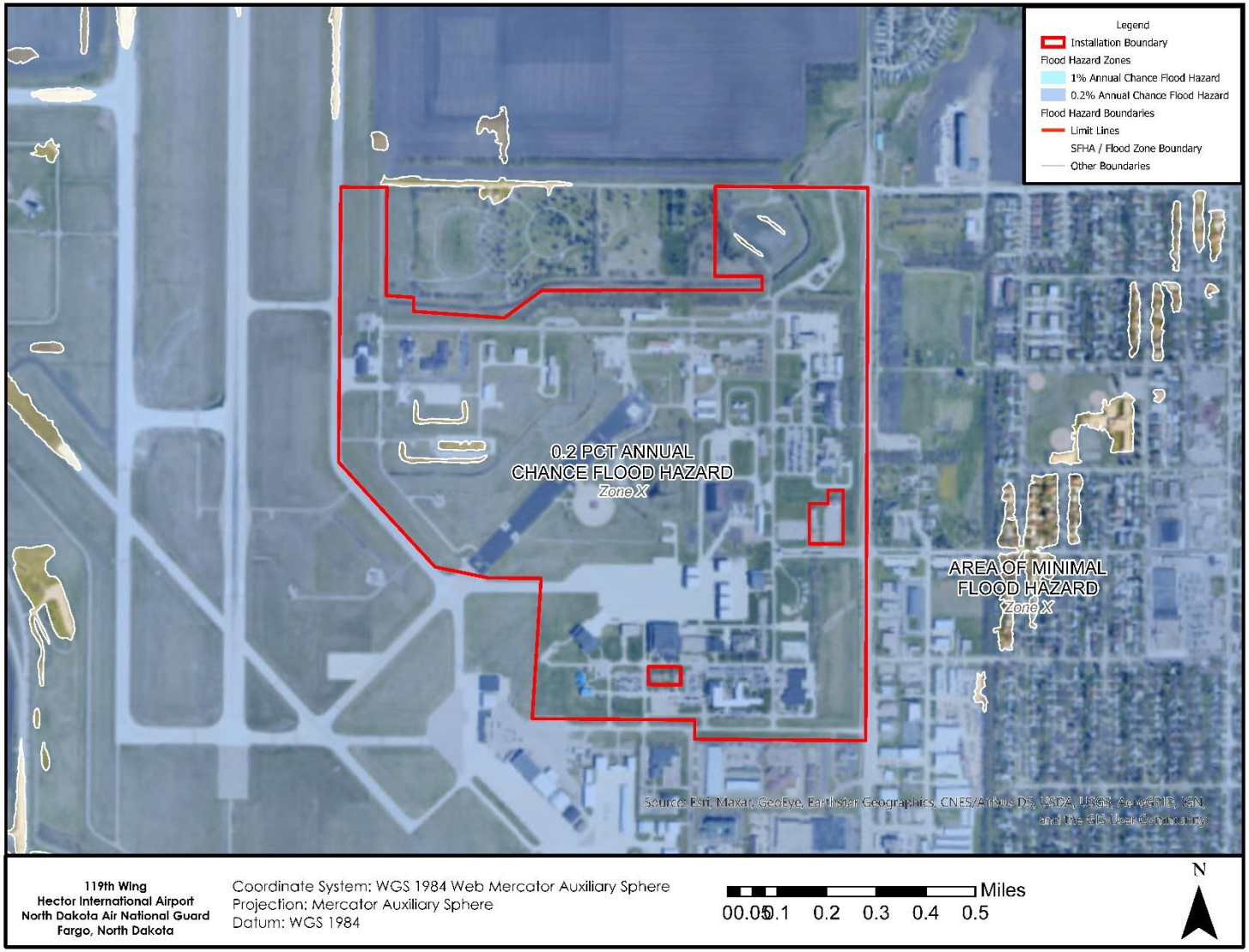

Figure 27: Floodplains Map

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3.7 BIOLOGICAL RESOURCES

3.7.1 Definition of Resource

Biological resources include native or naturalized plants and animals and the habitats in which they occur. Sensitive biological resources are defined as those plant and animal species listed as threatened or endangered, or proposed as such by the USFWS. The ESA protects listed species against killing, harming, harassing, or any action that may damage their habitat. Federal candidate species and species proposed for listing are not protected by law; however, these species could become listed and protected at any time.

An “endangered” species is a plant or animal species that is in danger of extinction throughout all or a significant portion of its range. A “threatened” species is one that is likely to become endangered in the foreseeable future. A strict legal process is involved in determining whether to list species, depending on the degree of threat each faces. As mandated by the ESA, the USFWS is the regulatory authority overseeing the protection of federal-listed threatened and endangered species. Individual states also enforce their own legislation protecting state-listed species.

Migratory birds, as listed in 50 CFR 10.13, are ecologically and economically important to the U.S. Recreational activities, including bird watching, studying, feeding, and hunting, are practiced by many Americans. In 2001, Executive Order 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, was issued to focus attention of Federal agencies on the environmental effects to migratory bird species and, where feasible, implement policies and programs, which support the conservation and protection of migratory birds.

Vegetation includes native or naturalized plants and the plant communities (e.g., wetlands, forests, and grasslands) in which they exist. In human-dominated environments, this may include agricultural or landscaped areas.

3.7.2 Existing Conditions

3.7.2.1 Vegetation and Forestry

The area of Cass County historically was covered by long prairie grass prior to the removal and replacement with agricultural crops such as wheat, soybeans, corn, and sugar beets. Additionally, cattle agriculture significantly affects the grasslands as the land is cleared for grazing pastures. While native grassland roots prevented erosion and runoff, the land quality was an essential habitat for the wildlife of the area. Although the prairie land has been altered by agriculture, limited areas of natural grasslands remain (Cass County Government, 2018).

Current grassland vegetation in Cass County is characteristic of a mixed-grass prairie and consists of prairie dropseed grass (*Sporobolus heterolepis*), big bluestem grass (*Andropogon gerardii), little bluestem grass (Andropogon scoparius), switchgrass (Panicum virgatum*), slender wheatgrass (*Elymus trachycaulus*), porcupine grass (*Miscanthus sinensis*), meadow sedge (*Carex granularis*), fescue grass (*Festuca arundinacea*), blue-eyed grass (*Sisyrinchium angustifolium*), mat muhly (*Muhlenbergia*

richardsonis), western prairie-fringed orchid (*Platanthera praeclara), meadow anemone (Anemone canadensis*), wild licorice (*Glycyrrhiza lepidota*), prairie blazing star (*Liatris pycnostachya*), tall goldenrod (*Solidago altissima*), black-eyed susan (*Rudbeckia hirta*), white sage (*Salvia apiana*), and prairie cinquefoil (*Potentilla arguta*) (North Dakota Game and Fish Department, 2015). While many of these plant species still exist in the area, the natural land has been altered beyond the original biodiversity as urbanization and agriculture has left little room for these native plants to thrive.

The 119 WG installation is situated on approximately 258 acres of Hector IAP property. Development of the installation and airport, and nearby agricultural activities, have removed much of the historic, native vegetative cover and replaced it with non-native landscaping.

A flora survey was conducted during summer of 2020 and identified 64 species of vascular plants (See Appendix B) and three habitat types: maintained grasslands, wetland fringe, and planted tree stands. Approximately 94% of the habitat types on the 119 WG installation consist of maintained grasslands of mowed lawns and existing infrastructure. The dominant vegetation present within this habitat includes grasses such as Altai fescue (Festuca altaica), barnyard grass (Echinochloa crus-galli), and yellow foxtail (Setaria pumila), as well as other vegetation typical of disturbed areas (GSRC, 2020).

The airport and installation are frequently mowed for weed control, appearance, and prevention of bird attraction (ANG, 2018b). The habitat type containing planted tree stands is located along the northern and eastern edge of the installation as a shelterbelt buffer from wind and snow. Tree species include slippery elm (Ulmus rubra), black walnut (Juglans nigra), Ohio buckeye (Aesculus glabra), American basswood (Tilia americana), black ash (Fraxinus nigra), and silver maple (Acer saccharinum) (GSRC, 2020).

The wetland fringe habitat consists of herbaceous and woody species and is located along the modified stream channels discussed in Section 3.6.2.1. The vegetation within this unit is primarily herbaceous and includes boxelder (Acer negundo), alderleaf buckthorn (Rhammus alnifolia), reed canary grass, and narrowleaf cattail (Typha angustifolia) (GSRC, 2020).

3.7.2.2 Wildlife

Cass County's once abundant prairie grasses supported a vast number of wildlife species, including wolves (*Canis lupus*), prairie dogs (*Cynomys ludovicianus*), elk (*Cervus elaphus*), black bear (*Ursus americanus*), brown bear (*Ursus arctos horribilis*), and bison (*Bison bison*). These species disappeared from the County due to hunting and removal of grassland. The marshlands and wetlands of Cass County create ideal breeding habitat for migrating birds as the area is located within the Mississippi Flyway, a semi-annual corridor used by birds to migrate between breeding grounds in the north and wintering grounds to the south.

There is little suitable habitat for wildlife at Hector IAP or the installation due to the high level of development on these properties. A fauna survey was conducted in summer of 2020 and identified 22 species of wildlife including birds, mammals, amphibians, and insects. These were observed through direct observations, or through vocalizations (GSRC, 2020). The wildlife species found at the installation are mostly limited to those which have adapted to high levels of human activity and disturbance, including small birds such as the mourning dove (Zenaida macroura), American goldfinch (Spinus tristis), house sparrow (Passer domesticus), savannah sparrow (Passerculus sandwichensis), and American crow (Corvus brachyrhynchos). Small mammals such as the fox squirrel (Sciurus niger) and eastern cottontail (Sylvilagus floridanus) were observed on base as well as white-tailed deer (Odocoileus virginianus). A full list of species can be found in Appendix B. Five bat species were detected on base during a 2017 survey including the big brown bat (Eptescius fuscus), silver-haired bat (Lasionycteris noctivagans), eastern red bat (Lasiurus borealis), hoary bat (Lasiurus cinereus), and the little brown bat (Myotis lucifugus) (ANG, 2017c).

3.7.2.3 Special Status Species

3.7.2.3.1 Federal

The USFWS Information for Planning and Consultation (IPaC) system was used to identify threatened, endangered, proposed, and candidate species and critical habitat for those species that could be affected by the Proposed Action. The species list was obtained March 26, 2021 and fulfills the requirement for obtaining a Technical Assistance Letter from the USFWS as required under Section 7(c) of the ESA. A copy of the USFWS IPaC correspondence is included in Appendix C.

Two species were identified as potentially occurring within the project area, although the project area provides no critical habitats for these species. The federally endangered whooping crane (*Grus americana*) and the threatened northern long-eared bat (*Myotis septentrionalis*) are found in North Dakota (Table 5). No federal or stated listed flora or fauna were found within the project area during a survey in 2020 (GSCR, 2020).

Table 5: Federally-listed Species with the Potential of Occurring within the Project Area.

Name	Federal Status	Habitat	Potential to Occur
Whooping Crane (*Grus americana*)	Endangered	Found in wetlands, marshes, mudflats, wet prairies and fields.	**Not expected to occur**; lack of suitable habitat
Northern long-eared bat (*Myotis septentrionalis*)	Threatened	Hibernates in caves and mines – swarming in surrounding wooded areas in autumn. Roosts and forages in upland forests and woods during the summer.	**Not expected to occur**; lack of suitable habitat.

Whooping Crane
Status. The whooping crane (*Grus americana*) is federally listed as endangered.

Distribution and Habitat. Whooping cranes currently exist in the wild at three locations and in captivity at 12 sites. There is only one self-sustaining wild population, the Aransas-Wood Buffalo National Park population, which nests in Wood Buffalo National Park and adjacent areas in Canada, and winters in coastal marshes in Texas at Aransas. The whooping crane breeds, migrates, winters, and forages in a variety of wetland and other habitats, including coastal marshes and estuaries, inland marshes, lakes, ponds, wet meadows and rivers, and agricultural fields. Whooping cranes breed and nest in wetland habitat in Wood-Buffalo National Park, Canada. During migration, whooping cranes use a variety of habitats; however, wetland mosaics appear to be the most suitable. Wintering habitat in the Aransas National Wildlife Refuge, Texas, includes salt marshes and tidal flats on the mainland and barrier islands (USFWS, 2020).

Potential for Occurrence. Whooping cranes formerly nested in North Dakota, but no nests have been recorded for more than 100 years. North Dakota lies in the migration corridor from Canada to Texas and provides important stopover habitat as the few birds left in the wild migrate through during both spring and fall. Cass County, where Hector IAP is located, falls within the possible range of migration for whooping cranes. There have been 39 citizen science observations from 2015 – 2020 in North Dakota, none of which were located in Cass County (The Cornell Lab, 2020).

Northern Long-eared Bat
Status. The northern long-eared bat (*Myotis septentrionalis*) is federally listed as threatened.

Distribution and Habitat. The northern long-eared bat's range includes much of the eastern and north central United States. The species' range contains 37 states, including North Dakota. During the summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities or crevices of both live trees and snags. Males and non-reproductive females may also roost in cooler places, like caves and mines. During the winter, northern long-eared bats hibernate in caves and mines (USFWS, 2015).

Potential for Occurrence. The northern long-eared bat has only been identified in a few locations in North Dakota. It has been documented in forested habitat in the Turtle Mountains, and the riparian corridors of the Little Missouri and Missouri rivers. Cass County, where Hector IAP is located, is within the possible range for northern long eared-bat (NDGFD, 2015). There are no roost records or acoustic and mist net capture records of northern long-eared bat on the installation (ANG, 2017c). If present in the area, northern long-eared bats may occasionally commute across parts of the installation. There are no known hibernacula within the vicinity of the project.

3.7.2.3.2 State

North Dakota does not have a state endangered or threatened species list. Only those species listed by the Endangered Species Act of 1973 are considered threatened or endangered in North Dakota (NDGFD, 2015).

3.8 TRANSPORTATION AND TRAFFIC CIRCULATION

3.8.1 Definition of Resource

Transportation and circulation refer to the movement of vehicles throughout a roadway network. Primary roads, such as major interstates, are principal arterials designed to move traffic and not necessarily to provide access to all adjacent areas. Secondary roads are feeder arterials that collect traffic from common areas and transfer it to primary roads.

3.8.2 Existing Conditions

Hector IAP is located in the City of Fargo in Cass County, North Dakota, adjacent to the eastern border of the State. Fargo is served by Interstate Highways (I)-29, and I-94 and U.S. Federal Highways (US)-10, and US-81.

Regional access to Hector IAP is provided by a number of roadways. I-29 travels approximately 1 mile west of the airport; two major east-west thoroughfares, 19th Avenue North and 40th Avenue North, are respectively connected to I-29 via Exits 67 and 69. University Drive North is a major north-south thoroughfare, which begins in central Fargo, travels east of the airport, and terminates at 40th Avenue North. Access to the Hector IAP passenger terminal is provided via Dakota Drive North, which intersects with 19th Avenue North.

Access to the 119 WG installation is via the main gate at the northern perimeter of the installation. The gate is located along 32nd Avenue North, just west of the North University Drive intersection (Figure 28). North University Drive intersects with 19th Avenue North and 40th Avenue North, both of which connect to I-29.

14th Street North provides primary north-south circulation from the 119 WG installation's main gate throughout the installation. There are currently 14 parking lots at the 119 WG installation, which comprise over 880 privately-owned vehicle (POV) parking spaces (North Dakota ANG, 2010a). A majority of parking areas are located in the southern portion of the installation, in the vicinity of Buildings 217 (Maintenance Hangar), 218 (Squadron Operations), and 400 (Dining Hall/Maintenance Facility); additional parking is concentrated near Building 100 (Base Engineering Maintenance Shop), Building 120 (Petroleum Operations Building), Building 350 (Conventional Munitions Shop), and at the intersection of 14th Street North and Phantom Drive.

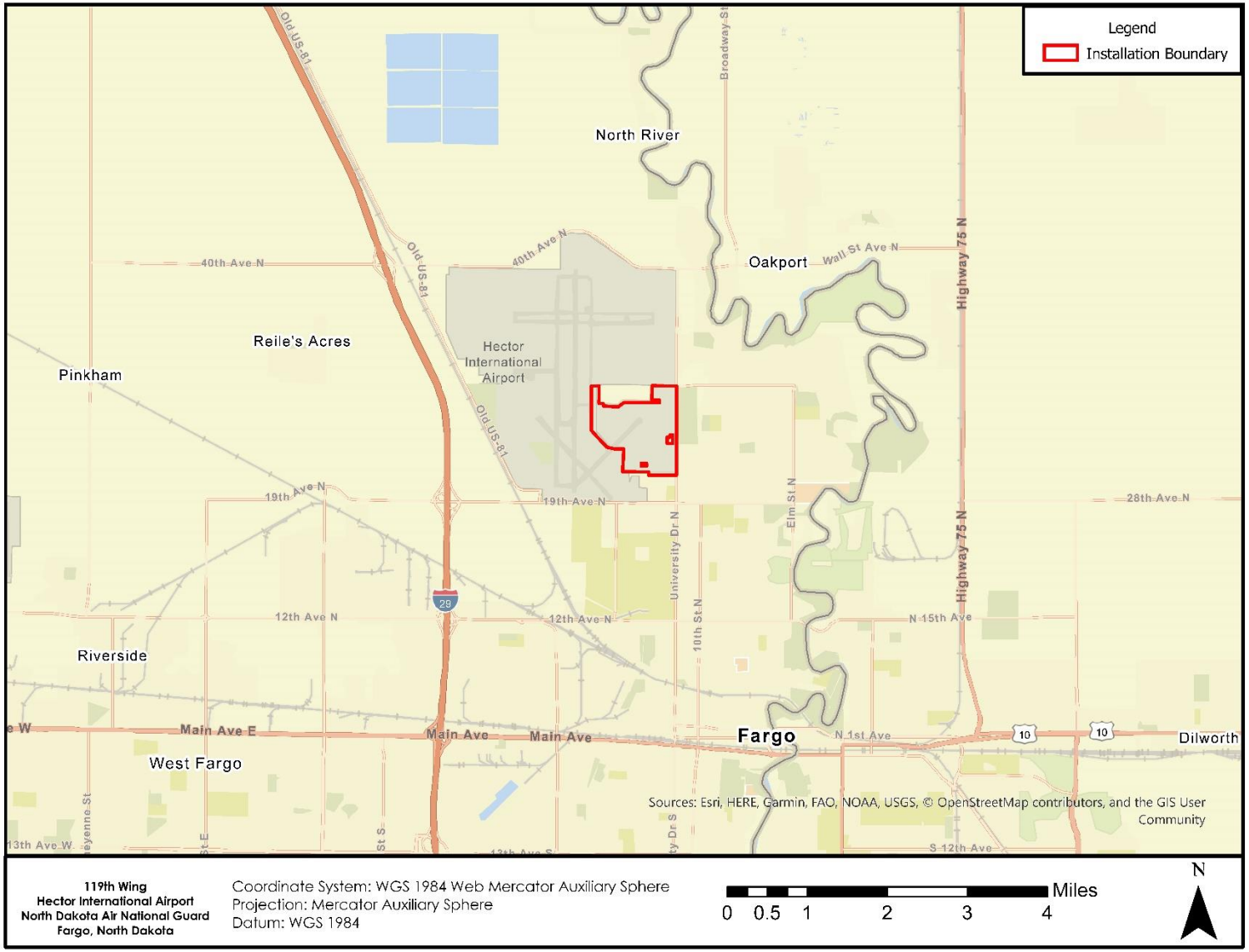

Figure 28: Area Roadmap

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3.9 VISUAL RESOURCES

3.9.1 Definition of Resource

Visual resources are defined as the natural and manufactured features that constitute the aesthetic qualities of an area. These features form the overall impression that an observer receives of an area (i.e., its landscape character). An area's susceptibility to visual impacts is related to visual sensitivity. Highly sensitive resources include national and state parks, recreation areas, historic sites, wild and scenic rivers, designated scenic roads, and other areas specifically noted for aesthetic qualities.

3.9.2 Existing Conditions

3.9.2.1 Regional Visual Character

Agricultural land use has and continues to be the predominate land use in Cass County, despite the loss of agriculture lands over the years. The major geomorphologic feature making up the eastern three-fourths of Cass County is the Red River Valley of North. This valley is a lake plain formed by glacier melt waters of a massive glacial ice lobe which occupied the area some 10,000 to 15,000 years ago. The plain of Lake Agassiz is flat and nearly featureless with a northward slope of 1.5 feet per mile and an eastward slope ranging from 2 feet per mile near the Red River to 20 feet per mile farther west. At the bottom of the Red River Valley lies the Red River of the North, a northward flowing river beginning in southeastern North Dakota and eventually draining into Lake Winnipeg in Canada. Five rivers comprise the major components of Cass County's surface drainage systems: Red River of the North, Sheyenne, Maple, Rush, and Wild Rice. These rivers play an important role in irrigation, recreation, and municipal water supply (Cass County Government, 2018).

3.9.2.2 Installation Visual Character

The visual environment at the Fargo ANG / Hector IAP is characteristic of military and civilian airfields. Structures include hangars, maintenance and support facilities, and navigational equipment. The Red River of the North is located about 2.5 miles north of the installation and meanders to about 2 miles to the east of the installation. There are no scenic highways, unique geologic landforms, or other highly valued aesthetic features on or near the installation. The topography is generally flat. The installation is bordered by a residential community to the south and east and farmland to the north and west.

3.10 CULTURAL RESOURCES

3.10.1 Definition of Resource

Cultural resources are evidence of past human occupation or use of a landscape. Archaeological sites include both pre-contact and historic uses of the land and may be identified by cultural materials such as projectile points, ceramics, scrap metal, etc. Architectural resources include standing buildings, bridges, dams, windmills and other structures of historic or aesthetic significance. Traditional cultural properties are sites that play a role in the identity or religious life of a culture.

If a cultural resource is determined eligible for listing in the NRHP, it becomes a historic property. Historic properties are afforded protection under a series of laws and regulations.

The principal federal law addressing historic properties is the NHPA of 1966, as amended (54 U.S.C. § 300101.), and its implementing regulations (36 CFR Part 800). Compliance with these regulations involves identifying and evaluating cultural resources for National Register eligibility; assessing the effects of Federal undertakings on historic properties, and mitigating those effects.

3.10.2 Existing Conditions

3.10.2.1 Archaeological Resources

In 2007, NGB conducted a Phase 1 archeological survey and an evaluation of buildings and structures at the Air National Guard installation at Hector IAP. The archeological survey resulted in no findings of surface or subsurface archeological resources. No eligible or listed NRHP archeological sites were found within the installation and no further archeological survey was recommended.

3.10.2.2 Architectural Resources

In 2007, NGB conducted a building and structure evaluation of the installation and determined that none of the buildings within the installation were eligible for the NRHP, either individually or as a historic district.

3.10.2.3 Traditional Resources

The 119 WG installation has no known traditional resources; however, 17 federally recognized American Indian Tribes that are historically, culturally, and linguistically affiliated with the area have been identified. These American Indian Tribes include the Fort Belknap Indian Community of the Fort Belknap Reservation of Montana, Apache Tribe of Oklahoma, Prairie Island Indian Community in the State of Minnesota, Flandreau Santee Sioux Tribe of South Dakota, Lower Sioux Indian Community in the State of Minnesota, Sisseton-Wahpeton Oyate of the Lake Traverse Reservation, South Dakota, Spirit Lake Tribe, North Dakota, Upper Sioux Community, Minnesota, Minnesota Chippewa Tribe - Grand Portage Band, Leech Lake Band of the Minnesota Chippewa Tribe, Santee Sioux Tribe of Nebraska, White Earth Band of Minnesota Chippewa Tribe, Standing Rock Sioux Tribe, Turtle Mountain Band of Chippewa, Mandan, Hidatsa and Arikara Nation, and Red Lake Band of Chippewa

The ANG invited the tribes above to consult on the proposed projects and assist the ANG in identifying any traditional resources that the ANG may not be aware of.

The Red Lake Band of Chippewa Indians requested to be involved with the project throughout its implementation as the project is within the Red Lake & Pembina Old Crossing Treaty of 1863 in a letter dated July 7, 2020.

3.11 SOCIOECONOMICS

3.11.1 Definition of Resource

Socioeconomics is defined as the basic attributes and resources associated with the human environment, particularly population and economic activity. Human population is affected by regional birth and death rates as well as net in- or out-migration. Economic activity typically comprises employment, personal income, and industrial growth. Impacts on these two fundamental socioeconomic indicators can also influence other components such as housing availability and public services provision.

Socioeconomic data in this section are presented at the county, state, and national level to analyze baseline socioeconomic conditions in the context of regional, state, and national trends. Data have been collected from previously published documents issued by Federal, state, and local agencies (e.g., U.S. Census Bureau) and from state and national databases (e.g., U.S. Bureau of Labor Statistics).

3.11.2 Existing Conditions

3.11.2.1 Population

The City of Fargo is the county seat of Cass County and the largest city in North Dakota (Cass County Government, 2018). According to the 2010 U.S. Census, the estimated population in Fargo is 105,549. The Census Bureau lists the 2019 population for Fargo to be 124,662, which represents a population increase of 18% since 2010. Cass County has exhibited similar increase of 21.5%, from 149,778 estimated in the 2010 census to 181,923 in the 2019 estimate (U.S. Census, 2020).

3.11.2.2 Job Growth and Unemployment

The unemployment rate in Cass County has been trending lower, with an average of 2.1% for 2017, 2.3% for 2018, and 2.0% for 2019. This compares favorably to the statewide annual average unemployment during the same times, with an average of 2.7% for 2017, 2.6% for 2018, and 2.4% for 2019. Overall, unemployment has remained consistent, trending slightly lower, for the past three years (U.S. Bureau of Labor Statistics, 2020).

3.11.2.2.1 Employment

The largest single employer in the Fargo/Moorhead/West Fargo metropolitan area is Sanford Health with 7,110 employees. The second major employer is the North Dakota State University with 3,500 employees. The third major employer is Essential Health with 2,440 employees. The fourth major employer is Fargo Public School District Number One with 1,929 employees. The fifth largest major employer is Wanzek Construction, Inc. with 1,841 employees (FMWF Chamber of Commerce, 2020).

3.11.2.2.2 Job Composition

The Bureau of Labor Statistics reported in May 2019 that the largest occupation in the Fargo/Moorhead/West Fargo metropolitan area was a tie between retail salespersons and registered nurses each with 4,260 employed. Customer service representatives came in next with 3,750 employed. Heavy and tractor-trailer truck drivers were the next largest occupation with 3,130 employed. Fast food and counter workers were the next

largest occupation with 3,030 (Bureau of Labor Statistics, 2020). For those aged 25 years and older between 2014 and 2018, 93.9% had a high school degree or higher, while 39.5% had a bachelor's degree or higher (U.S. Census Bureau, 2020).

3.11.2.2.3 Earnings

Table 6 summarizes population characteristics for the County, State and Country. The percentage of Cass County's population living below the poverty level was 11.0%. This is slightly higher than the average for the state but lower than the national average. The average household income in the Fargo area was $55,551 in 2019, while the average household income in Cass County was $64,482 for 2019 (U.S. Census Bureau, 2020).

3.11.3 Environmental Justice

Ethnic minorities are: African Americans, Hispanics, Asian, Native Hawaiian and other Pacific Islanders, and American Indian and Alaskan Native. Low income persons are people with incomes below the Federal poverty level. Children are those persons age 17 or younger. Data from the 2010 U.S. Census was tabulated and analyzed in order to determine if concentrations of ethnic minorities, low-income populations, and children exist near the project area. The results in Table 6 were compared proportionally with the same populations within the State of North Dakota and within the greater U.S.

Table 6: Percentages of Children, Minority and Low-income Populations in Cass County, North Dakota and the U.S.

Population	Cass County, North Dakota	State of North Dakota	U.S.
Total Population	181,516	760,077	327,167,439
% Ethnic Minority Population			
• African American	6.7%	3.4%	12.7%
• Hispanic	2.8%	3.6%	18.3%
• Asian	3.7%	1.8%	5.6%
• Native Hawaiian & other Pacific Islander	0.0%	0.0%	0.2%
• American Indian & Alaska Native	1.1%	5.4%	0.9%
% Low Income Persons	11.0%	10.7%	13.1%
% Children	22.5%	23.0%	22.4%

Source: U.S. Census Bureau, 2018 ACS 1-Year Estimates Data Profiles

The percentages of African Americans and Asians living in Cass County were lower than the U.S. averages, but larger than the North Dakota averages. The percentage of Hispanics in North Dakota was lower than the U.S. average, and was even lower in Cass County. The percentage of American Indian & Alaska Natives in North Dakota is much higher than the U.S. average; however, the average in Cass County is lower than the state average. The population of Native Hawaiian & other Pacific Islanders was both 0% in Cass County and North Dakota, which is lower than the U.S. average. The

poverty rate in both Cass County and North Dakota are lower than the U.S. average; however, Cass County has a slightly higher rate than the state average.

3.11.4 Protection of Children from Environmental Health Risks and Safety Risks

In 2018, there were 45,853 children aged 17 and younger living in Cass County, comprising 22.5 percent of the population. This compares to 23.0 percent of the population for the State of North Dakota and 22.4 percent for the nation. The installation has no on-base housing and no facilities for children.

3.12 HAZARDOUS MATERIALS AND WASTES, SOLID WASTE, AND OTHER CONTAMINANTS

3.12.1 Definition of Resource

Activities discussed under this resource section include the use, handling and disposal of hazardous materials and wastes; and storage and use of munitions. Hazardous materials are substances with strong physical properties of ignitability, corrosivity, reactivity, or toxicity which may cause an increase in mortality, a serious irreversible illness, incapacitating reversible illness, or pose a substantial threat to human health or the environment. Hazardous wastes are any solid, liquid, contained gaseous, or semisolid waste, or any combination of wastes that pose a substantial present or potential hazard to human health or the environment. Hazardous wastes that may be found on bases with aged infrastructure include asbestos, lead-based paints, and mercury ballasts in equipment.

Issues associated with hazardous materials and wastes typically center around underground storage tanks; aboveground storage tanks; and the storage, transport, and use of pesticides, fuel, and petroleum, oil, and lubricants. When such resources are improperly used in any way they can threaten the health and well-being of wildlife species, biological habitats, soil systems, water resources, and people.

To protect habitats and people from inadvertent and potentially harmful releases of hazardous substances, DoD has dictated that all facilities develop and implement Hazardous Waste Management Plans (HWMPs) and Spill Prevention and Response Plans. Also, DoD has developed the Environmental Restoration Program, intended to facilitate thorough investigation and cleanup of contaminated sites located at military installations. These plans and programs, in addition to established legislation effectively form the “safety net” intended to protect the ecosystems on which most living organisms depend.

3.12.2 Existing Conditions

3.12.2.1 Hazardous Waste

The 119 WG currently operates under a HWMP (ANG, 2018), which fulfills the requirements of AFMAN 32-7002 *Environmental Compliance and Pollution Prevention*. The primary objective of the plan is to document waste management procedures at the base. The HWMP covers hazardous waste, including universal waste, and applies to all personnel (including contractors) who conduct work at 119 WG. Based on the quantity

of hazardous waste routinely generated at the site, 119 WG is a very small quantity generator (VSQG) under RCRA, that is, they generate less than 100 kilograms (kg) of hazardous waste or less than one kilogram of acutely hazardous waste in one month.

Hazardous waste generation and storage areas at the 119 WG are maintained and operated to minimize the possibility of fire, explosion or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water that could threaten human health or the environment. According to 40 CFR 262, VSQGs must comply with 40 CFR 265, Subpart C, Preparedness and Prevention. These regulations address required equipment, testing and maintenance of equipment, access to communications or alarm systems, required aisle space, and arrangements with local authorities. Waste accumulation is dispersed throughout 119 WG, based on operations that potentially generate waste. There are 17 satellite waste accumulation points which are identified in the HWMP; these locations also include universal waste accumulation. There is one medical waste accumulation point. One central hazardous waste accumulation site is maintained for the base.

The universal waste includes various types of batteries, thermostats, and light bulbs. The hazardous waste streams are more diverse, and include refrigerant oil; fuel filters; oil filters; used antifreeze; solder materials; solvent containing wastes such as used gloves, sorbents and rags; solvent tank filters; used solvents; oil/water separator sludge; waste adhesives; paint wastes; bead blast media; and used oils (e.g., brake fluid, motor oil, hydraulic fluid, grease.) The HWMP includes the generating activities, the estimated quantities, the waste identifications, and disposal methods (off-site disposal is used).

3.12.2.2 Solid Waste

Solid waste is addressed in an Integrated Solid Waste Management Plan (ISWMP) for the base (ANG, 2016). Consistent with the goals of the DoD (EO 13834 *Planning for Federal Sustainability in the next Decade*, 10 June 2015), 119 WG aims to minimize the amount of solid waste, with a 50% division of solid waste and a 50% diversion of construction and demolition (C&D) waste through recycling. Waste disposal is done by the City of Fargo Municipal Waste System, with solid wastes taken to a local landfill. Grass cuttings are mulched in place. Wood and branches are diverted to a composting/mulching site operated by the city. Wooden pallets are typically reused, unless they have been damaged; those materials are included in the wood recycling dumpster. Used tires are recycled or disposed of through the Defense Reutilization Marketing Office. Batteries and light bulbs are collected at the universal waste collection sites on the base for recycling.

3.12.2.3 Toxic Substances

Asbestos or asbestos containing materials (ACM) are a concern for older infrastructure. Asbestos was historically used widely in insulation and building materials. The 119 WG conducted an asbestos survey in 1999 (ANG, 1999). The Asbestos Management Plan identifies buildings on base where asbestos is known or suspected to occur. Since the development of this plan, asbestos abatement has occurred in a number of buildings (ANG, 2017). The Proposed Action includes work in Building 400 and Building 217.

Both of these buildings were identified as containing asbestos materials in various flooring and insulation materials, however, both buildings have had some asbestos abatement since the original survey. Based on past surveys, it is likely that these buildings still contain some ACM, and the presence/absence of asbestos containing materials should be confirmed prior to any construction activities. The base Asbestos Management Plan covers the steps needed for construction projects (ANG, 1999).

NDANG maintains an inventory of halons (ANG, 2016b). Halons are non-reactive halogenated carbon compounds, used in fire extinguishers. They are part of a family of compounds known to damage the ozone layer, and are thus intended to be phased out and substituted for less damaging compounds. In the case of the 119 WG, the base maintains 450 pounds (lbs.) of Halon 1211 in three fire extinguishers. No suitable replacement has been identified for these flightline extinguishers, so these mission essential materials have not been replaced. Other halon using systems at the base have been replaced over the years.

3.12.2.4 Restoration

Due to historical manufacturing, maintenance, and operations at military bases, some bases have historical contamination or waste locations. In 1996, the DoD issued instructions for the Environmental Restoration Program (ERP) as part of fulfilling obligations under the Defense Environmental Restoration Program (DERM), established in 1986 as part of the Superfund Amendments and Reauthorization Act. The Air Force established the Installation Restoration Program (IRP) to accomplish this process. The 119 WG has taken steps to identify and remove historical contamination sites or potential contamination sites. Although a number of sites were originally investigated, some of these were readily addressed or required no additional action and are not discussed further here. The sites with on-going action or that were more recently addressed are discussed below.

The ERP investigations identified three sites requiring longer term action at the 119 WG; these sites were identified as having soil and groundwater contamination issues (BB&E, 2016b). These sites are known as Site 1 (grassy area adjacent to former Building 211 Pump House), Site 2 (Storage Area Adjacent to former Building 231), and Site 11 (southwest corner of Building 217).

Site 1 included fuel contamination which had occurred over a number of years (BB&E, 2016b). The leaking tank was subsequently removed from service and physically removed, along with adjacent contaminated soil. Further investigation lead to additional soil excavation. It is expected that low concentrations of soil contamination remain near utilities were excavation was not possible, however, any remaining contamination does not appear to represent a human health risk. The site was determined to be addressed and was closed out in 2013.

Site 2 is near the parking and refueling apron; waste hydraulic oils leaked into the area many years ago. The tank was taken out of service in 1984. Petroleum contaminated soils were subsequently excavated from the area. The impacted area is capped to the

north and west by the parking apron, and to the south by a drive. Although some amount of petroleum hydrocarbons appear to remain in the soil, due to the location, the soils were left in place and the site was closed out in 2003 (BB&E, 2016b).

Site 11 was the location of an aboveground heating oil tank (BB&E, 2016b). The tank failed tightness testing and was removed. Upon removal it was discovered that the ground was stained from spillage or leakage. The estimated amount of oil spilled was not known. Volatile organic compounds (VOCs) and petroleum compounds were found in both the soil and the groundwater. In addition, chlorinated solvents were found; the source of these was eventually determined to be a nearby storage area for chlorinated solvents (stored in 55-gallon drums). A larger plume of petroleum and solvent containing groundwater was delineated. The alternatives selected for addressing the site included institutional controls (i.e., a deed restriction on the use of groundwater in this area), groundwater monitored natural attenuation, enhanced anaerobic bioremediation, and groundwater monitoring.

Injection and monitoring wells were installed around Site 11. Baseline monitoring was conducted in 2011, and bio-stimulation amendments were injected into the wells. A second round of amendments was injected in 2015 (ANG, 2016). Monitoring of the groundwater on a semi-annual basis has continued. Sampling of Site 11 monitoring wells in 2016 for 1,4-dioxane (an emerging contaminant) found that compound present in one well at concentrations exceeding the USEPA Risk Screening Level (ANG, 2017b). The latest reported sampling event occurred in April 2019 (Tetratech, 2019). Eleven wells were sampled; chlorinated solvents were detected in multiple wells but at lower concentrations than previously measured. The amendments for stimulating biological degradation are considered to be responsible for the reduction in concentrations over time (at a rate faster than through dilution alone). Petroleum compounds in the groundwater have similarly decreased over the years of monitoring. Monitoring events are expected to continue.

An initial investigation of perfluorinated alkyl substances (PFAS) was completed in 2016 (BB&E, 2016). One former fire training area which could be associated with PFAS usage was identified as needing potential investigation. The area is coincident with ERP Site 10, which was used for fire training exercises that also used fuels and possibly solvents in a burn pit. The site is now an open, grassy area. The ERP Site 10 was the subject of a site investigation in 1992. Contaminated soil was removed from the area between 1996–1997; the material was treated in a land farming process. That investigation and clean up did not consider PFAS.

The initial PFAS investigation also identified eleven potential PFAS sites (BB&E, 2016). These locations included former and current fire-fighting areas, stormwater outfalls, nozzle testing areas, and aircraft parking and work areas where PFAS containing compounds may have been stored or released. Out of the original list of twelve potential PFAS locations, the original investigation report recommended follow up investigation at ten of the locations, including ERP Site 10.

A follow up investigation was conducted in 2018 (Leidos, 2019). Variable levels of compounds were found at all ten areas investigated from soil, groundwater, and surface water samples (see Figure 29). Additional investigations are recommended in the study report, in particular because surface water samples contained measurable levels of PFAS that could indicate that materials are migrating off site. Since PFAS are mobile and the extent of the compound has not been fully delineated, there is a possibility of soil and groundwater contamination at the proposed project sites.

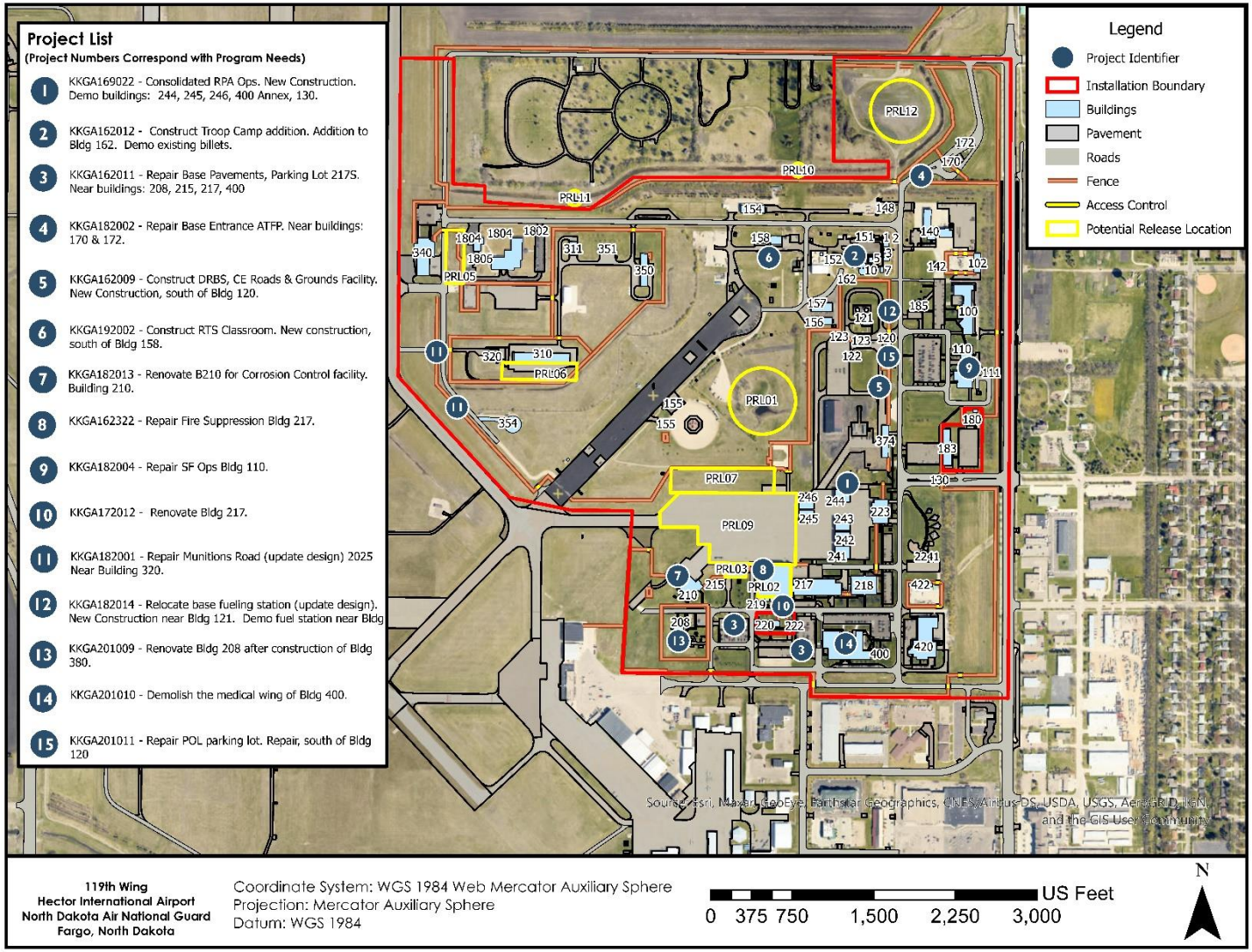

Figure 29: PFAS Results for 119 WG

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4. ENVIRONMENTAL CONSEQUENCES

This Chapter discusses the direct, indirect, and cumulative effects on the existing environment (see Chapter 3) that are expected from implementation of the Proposed Action. Only those resources that would cause an adverse or beneficial impact above and beyond the No Action Alternative condition are detailed.

The direct and indirect analyses were prepared in accordance with the requirements of NEPA and guidance from the CEQ, *Considering Cumulative Effects under the National Environmental Policy Act*. The CEQ defines direct and indirect impacts as:

- Direct impacts are caused by the action and occur at the same time and place (40 CFR §1508.8[a]).
- Indirect impacts "are caused by an action and are later in time or further removed in distance but are still reasonably foreseeable" (40 CFR §1508.8[b]). They may include growth-inducing effects related to changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems.

4.1 Scope of the Environmental Assessment

Sections 4 and 5 of this document provide an analysis of the Proposed Action and the impacts (both beneficial and adverse) on a variety of environmental and socioeconomic parameters. A summary of the parameters investigated and their impacts determination is presented below in Table 7. Following this summary, the resources not evaluated further (due to lack of impacts) are discussed in further detail in Section 4.2. This is followed by a detailed discussion of the impacts to individual resources. It is noted that the No Action Alternative represents no change from current conditions, and thus has no new effects on any resources.

Table 7: Summary of Impacts for the 119 WG at Hector IAP

Parameter of Concern	Proposed Action	No Action Alternative	Alternative 1
Safety	Beneficial impacts.	No effects.	Beneficial impacts.
Air Quality	Temporary construction-related impacts; no long-term impacts.	No effects.	Temporary construction-related impacts; no long-term impacts.
Noise	Temporary construction-related impacts; no long-term impacts.	No effects.	Temporary construction related impacts; no long-term impacts.
Land Use	No effects.	No effects.	No effects.

Parameter of Concern	Proposed Action	No Action Alternative	Alternative 1
Geological Resources	Temporary construction impacts (soil disturbance); no long-term impacts.	No effects.	Temporary construction impacts (soil disturbance); no long-term impacts.
Water Resources	No significant short-term/long-term impacts.	No effects.	No significant short-term/long-term impacts.
Biological Resources	No effects.	No effects.	No effects.
Transportation and Circulation	Beneficial impacts.	No effects.	Beneficial impacts.
Visual Resources	No effects.	No effects.	No effects.
Cultural Resources	No effects.	No effects.	No effects.
Socioeconomics	Temporary construction job opportunities; no long-term impacts	No effects.	Temporary construction job opportunities (beneficial impact); no long-term impacts.
Hazardous Materials and Wastes	Temporary construction-related impacts; no long-term impacts.	No effects.	Temporary construction-related impacts; no long-term impacts.

4.2 Resources Not Carried Forward for Analysis

Per CEQ regulations (40 CFR 1500), federal agencies may focus their NEPA analysis on those resource areas that could be affected and omit discussions of resource areas that would not be affected by a Proposed Action (40 CFR 1501.7[a][3]). The following resource areas have been reviewed (refer to Chapter 3 and Table 7) and determined not to warrant further consideration because there would be no or negligible potential for effects from implementing the Proposed Action. The effects would be similar for Alternative 1.

4.2.1 Land Use

The land use impacts analysis evaluates the Proposed Action's compatibility with existing land use as well as consistency with adopted land use plans and policies. The significance of impacts is based on the level of land use sensitivity in areas affected by the Proposed Action. In general, land use impacts are considered significant if they are:

1. Inconsistent or noncompliant with applicable land use plans and policies;
2. Preclude the viability of existing land use;
3. Preclude continued use or occupation of an area; or,
4. Incompatible with adjacent or vicinity land use to the extent that public health or safety is threatened.

The Proposed Action does not include development beyond the current base footprint. There is no change to the zoning on the installation and the Proposed Action is in conformance with the existing Public/Institutional (P/I) zone. There are few changes in land use that are proposed. Currently, some building demolitions will be restored to grass areas while other non-paved and paved areas will include building construction. These changes result in little overall change to the amount of impervious area. The estimated increase in impervious area is 1.61 acres. No farmland, residential areas, or other development are being converted to base-use under the proposed action.

4.2.2 Biological Resources

The analysis presented in Section 3.7.2.3.1 for the federally listed species that have the potential of occurring within the Proposed Action area determined the Proposed Action would have 'no effect' on the whooping crane and northern long-eared bat.

Determination of the significance of impacts to biological resources is based on:

1. The importance (legal, commercial, recreational, ecological, or scientific) of the resource;
2. The proportion of the resource that would be affected relative to its occurrence in the region;
3. The sensitivity of the resource to proposed activities; and
4. The duration of ecological ramifications. Impacts to biological resources are significant if species or habitats of high concern are adversely affected over relatively large areas, or disturbances cause reductions in population size or distribution of a species of special concern.

Since there are no records on the federally threaten northern long-eared bats or whooping crane in the Proposed Action area, it has been determined that the Proposed Action will have "no effect" on the federal and state listed northern long-eared bat or whooping crane (refer to Sections 3.7.2.3.1 and 3.7.2.3.2). The Proposed Action does include the cutting of trees, however, plantings of one to one tree replacements are planned. Overall, the Proposed Action would have no impact to important or sensitive biological resources.

4.2.3 Visual Resources

Determination of the significance of impacts on visual resources is based on the level of visual sensitivity in an area. Visual sensitivity is defined as the degree of public interest in a visual resource and concern over adverse changes in the quality of that resource. In general, an impact on a visual resource is significant if implementation of the Proposed Action would result in a substantial alteration of a sensitive visual setting. For the Proposed Action, no unique or sensitive visual resources exist in the area.

4.2.4 Cultural Resources

Determination of the significance of impacts to cultural resources relates to:

1. Direct impacts are those that:
    a. Physically alter, damage, or destroy all of part of a resource;

b. Alter the surrounding environment's characteristics that contribute to the resource;
c. Introduce visual or audible elements that do not align with the property's characteristics; or
d. Neglect a resource to the extent that it deteriorates or is destroyed.

2. Indirect impacts result primarily from:
    a. Population increases on the installation resulting from the proposed action; and
    b. Construction activities to accommodate the population growth.

The ANG has determined that, pursuant to 36 CFR 800.4(d)(1), no historic properties will be affected by the proposed undertaking as there are no historic properties within the Area of Potential Effect. The SHPO concurred with this determination on June 19, 2020. Of the federally recognized tribes that were contacted who may have had cultural or historic interest in the project area, only the Red Lake Band of Chippewa Indians responded.

The Red Lake Band of Chippewa Indians requested (in a letter dated July 7, 2020) to be involved with the project throughout its implementation as the project is within the Red Lake & Pembina Old Crossing Treaty of 1863. Specifically, the Red Lake Band of Chippewa have concerns about the potential for unrecorded archeological resources being discovered during project construction.

4.3 Safety

Federal agencies must comply with federal work and public safety laws as well as with agency regulations, policy and guidance. Actions that would impact the health and safety of base employees and contractors, or that would extend to impact the general public would be considered significant. Actions or activities that are not compliant with current laws and regulations would likewise be considered significant. The significance of safety issues can be mitigated by rigorous application of safety standards and practices. Based on an assumption of safety compliance for base activities, including construction projects, there are no safety impacts.

For the 119 WG, the Proposed Action would be expected to result in beneficial effects for multiple facilities that are presently in violation of AT/FP standards related to parking setbacks, facilities construction, and security. Currently, parking setback violations exist for Building 208, parking lot 217S, and the POL parking lot. The Troop Camp billets are in violation of facilities construction due to their building predating AT/FP standards. The Base ECP violates security AT/FP standards to be able to prevent unauthorized access. The AT/FP standard violations will be remedied with the implementation of the Proposed Action.

4.4 Air Quality

The 1990 amendments to the CAA require that federal agency activities conform to the affected SIP with respect to achieving and maintaining attainment of NAAQS and

addressing air quality impacts. An air quality impact resulting from the Proposed Action and facilities development programs would be significant if it would:

1) Increase concentrations of ambient criteria pollutants or ozone precursors to levels exceeding NAAQS;
2) Increase concentrations of pollutants already at nonattainment levels;
3) Lead to establishment of a new nonattainment area by the Governor of the state or the USEPA;
4) Delay achievement of attainment in accordance with the SIP.

The 119 WG is in an attainment area for all NAAQS, therefore General Conformity rules do not apply and a General Conformity determination is not required.

Pollutant emissions associated with the Proposed Action construction activities would include fugitive dust emissions during ground disturbance and related site preparation activities and combustion emissions from vehicles and heavy-duty equipment used during construction. Emissions of VOC, NOx, PM-2.5, SO_2, CO, and PM-10 from construction activities were estimated using the Air Conformity Applicability Model (ACAM). The ACAM analyses for individual projects making up the Proposed Action are documented in Appendix D: Air Impact Analysis. Calculated VOC, NOx, PM-2.5, SO_2, CO, and PM-10 emissions are summarized in Table 8 and
Table 9. Individual project emissions, as well as combined annual emissions, are shown. The highest emissions for all pollutants are associated with renovating Building 217 (Table 8). The highest combined annual emissions occur in 2025, although individual pollutants may be higher in other years (
Table 9).

Table 8: Total ACAM Estimated Emissions for Individual Projects

	VOC	**NOx**	**PM-2.5**	**SO_2**	**CO**	**PM-10**
Years	Tons	Tons	Tons	Tons	Tons	Tons
Consolidated Remotely Piloted Aircraft (RPA) Operations						
2022 - 2023 Construction/Demolition	0.97	1.98	0.08	0	2.31	0.39
2023 – Indefinite Add Heating A	0	0.01	0	0	0.01	0
2023 – Indefinite Add Heating B	0	0.01	0	0	0.01	0
Construct Troop Camp Addition, Building 162						
2022 Construction/Demolition	0.09	0.36	0.01	0	0.39	0.07
2022 – Indefinite	0	0	0	0	0	0

Add Heating A						
2022 – Indefinite Add Heating B	0	0	0	0	0	0
2022 – Indefinite Add Heating C	0	0	0	0	0	0
2022 – Indefinite Add Heating D	0	0	0	0	0	0
Repair Base Pavements, Parking Lot 217S						
2022 Construction/Demolition	0.16	0.96	0.04	0	1.10	0.21
Repair Base Entrance ATFP						
2023 Construction/Demolition	0.04	0.22	0	0	0.24	0.23
Construct Disaster Relief Bed down Set (DRBS) and Civil Engineering (CE) Roads & Grounds Facility						
2024 Construction/Demolition	0.1	0.59	0.02	0	0.84	0.02
2024 – Indefinite Add Heating	0	0.08	0.01	0	0.07	0.01
Construct Regional Training Site (RTS) Classroom						
2024 Construction/Demolition	0.14	0.19	0.02	0	0.68	0.05
2024 – Indefinite Add Heating	0	0.02	0	0	0.01	0
Renovate Building 210 for Corrosion Control Facility						
2030 Construction/Demolition	0.56	1.68	0.06	0	1.99	0.24
Repair Fire Suppression Building 217						
2022 Construction/Demolition	0.01	0.12	0	0	0.11	0
Repair Security Forces (SF Ops) Building 110						
2022 - 2023 Construction/Demolition	0.46	0.59	0.02	0	0.66	0.02
Renovate Building 217						
2030 Construction/Demolition	2.61	1.66	0.05	0	1.93	1.03

Repair Munitions Road (update design)						
2025 Construction/Demolition	0.06	0.32	0.01	0	0.5	0.54
Relocate base fueling station (update design)						
2025 Construction/Demolition	0.04	0.26	0	0	0.36	1.26
Renovate Building 208 after construction of Building 380						
2025 Construction/Demolition	0.22	0.28	0.01	0	0.38	0.01
Demolish the Medical Wing of Building 400						
2025 Construction/Demolition	0.06	0.31	0.01	0	0.42	0.11
Repair Petroleum, Oil, Lubricants (POL) Parking Lot						
2025 Construction/Demolition	0.09	0.52	0.01	0	0.71	0.71

Table 9: Annual ACAM Estimated Emissions for Proposed Action

	VOC	**NOx**	**PM-2.5**	**SO_2**	**CO**	**PM-10**
Year	Tons/year	Tons/year	Tons/year	Tons/year	Tons/year	Tons/year
2021	0.445	0.978	0.039	0.003	1.159	0.142
2022	1.076	4.173	0.161	0.012	4.84	0.781
2023	0.777	0.77	0.03	0.002	0.9	0.254
2024	0.24	1.105	0.044	0.004	1.553	0.074
2025	0.595	2.450	0.086	0.009	3.344	3.061
2026	2.504	1.138	0.04	0.005	1.280	0.64
2027 (Steady State)	0.007	0.125	0.01	0.001	0.1	0.01
Maximum Emissions	2.504	4.173	0.161	0.012	4.84	3.061
De minimis Emission Levels	100	100	100	100	100	100
General Conformity Determination Applicable?	No	No	No	No	No	No

To minimize not only erosion but also dust generation, construction contractors must limit the amount of unstabilized land at any time. To minimize temporary adverse impacts to air quality during construction activities, the following are required:

- All equipment is to be current with functional emissions controls;
- All equipment will use low sulfur diesel fuels; and
- Dust control measures will be used during dry weather, including but not limited to the use of covered loads, street sweeping and tire brushes to avoid tracking soils onto public roads, and watering/sprinkling unstabilized earthwork areas to minimize windblown dust.

Regarding combustion emissions from vehicles, the following language from AFI 24-302 pertains:

- 10.12.1. Installations will adhere to state, local or host nation air quality regulations which govern vehicle operations while the government vehicle is idling (T-0); and
- 10.12.2. In areas without such regulations, a “5 minute” idling policy will be in effect per AF/A4 guidance (T-1).

Regarding long-term impacts, the base mission has not substantially changed and there is no proposed addition of aircraft. Because the basic functions of the base and the sources of emissions remain primarily the same, there are no new long-term impacts to air quality identified. The base will remain a minor source of NAAQS and HAPS as demonstrated in the Air Impact Analysis (Appendix D), with anticipated emissions well below major source thresholds for any air pollutant. All new or upgraded HVAC systems would comply with current CAA requirements (Section 608) regarding refrigerants, and it is expected that new equipment will be more efficient and have fewer emissions than outdated equipment being replaced. The required North Dakota Department of Environmental Quality (NDDEQ) permits to construct will be obtained for each new generator and boiler prior to installation, verifying equipment and operating processes will be constructed per applicable State and Federal regulations.

In addition to criteria pollutants, the Proposed Action would also temporarily generate greenhouse gas emissions as a result of fossil fuel combustion related to construction and contractor vehicles. The Proposed Action does not appreciably change greenhouse gas emissions at the station, since there are no new significant sources of emissions. While implementing the Proposed Action would cause a small, temporary increase in greenhouse gas emissions during construction, the increase will not appreciably accelerate the effects of climate change.

4.5 Noise

Noise impact analyses evaluate potential changes to existing noise environments that would result from implementation of a Proposed Action. Potential changes in the noise environment can be beneficial (i.e., if they reduce the number of sensitive receptors exposed to unacceptable noise levels), negligible (i.e., if the total area exposed to

unacceptable noise levels is essentially unchanged), or adverse (i.e., if they result in increased exposure of sensitive receptors to unacceptable noise levels).

The Fargo City Code was reviewed for this noise impact analysis. Noise ordinance for the City is found in Chapter 11 Public and Sanitary Nuisance, Article XI Noise Control and Radio Interference (City of Fargo, 2020). Section 11-0207 enumerates that construction activities on a construction site are exempt from the aforementioned noise ordinances. In the event certain construction or demolition equipment noise will exceed prohibited noise levels, the owner or operator of such equipment may apply for relief from this article on the basis of undue hardship. Applications for a permit for relief from the noise level designated in this section on the basis of undue hardship may be made to the city engineer or a duly authorized representative.

Noise from construction activities would be generated by a broad array of powered, noise-producing mechanical equipment used in the construction process. This equipment ranges from hand-held pneumatic tools to dump trucks, concrete pump trucks, and excavators. Noise levels associated with various construction phases when all pertinent equipment is present and operating, at a reference distance of 50 feet, are shown in Table 10.

Table 10: Typical Noise Levels from Construction Activities

Construction Activity	**Measured Sound Level at 50 feet (dBA L_{max})[a]**
Backhoe	78
Excavator	81
Dump Truck	76
Paver	77
Front End Loader	79
Roller	80

[a] Construction Noise Handbook. Federal Highway Administration. 2006.

Sounds are more significant when closer to the source; sound levels decrease by approximately 5 dBA L_{eq} for each 50 feet of distance from the source. For the Proposed Action, the nearest residence to a proposed facility is on 10th Street N, approximately 0.75 miles away. At this distance, the sound that construction equipment would attenuate to is negligible. Therefore, the noise level at the nearest house will not be noticeably greater than the current ambient noise levels, which is a less than significant impact to the nearest home.

Although there would be less than significant adverse impacts to noise levels outside the Proposed Action area during construction activities, the following BMP would be implemented to ensure any unforeseen potential adverse impacts are minimized:

- Limitations on work hours to avoid early morning, evening/night, and weekend work which would disturb nearby homeowners.

In regards to long-term impacts, the proposed mission for the base has not changed. The 119 WG will continue to operate MQ-9 Reaper drones at the airport— no additional aircraft are being added to the 119 WG as part of this Proposed Action. In August 2007, an analysis was conducted of the flying operations at Hector IAP (i.e., military, general aviation, and commercial) including types of aircraft used, flight patterns, variations in altitude, power settings, number of operations, and hours of operation. This Noise Exposure Mapping and Analysis Report found that there would be no significant effects resulting from MQ-9 Reaper operations in the vicinity of Hector IAP. Since there are no additional aircraft operations as part of this Proposed Action, the report's findings remain valid. Flight hours are not expected to increase as result of this Proposed Action.

Increased ground-based activity on base is expected as result of this Proposed Action, as the renovation of existing facilities will provide sufficient functional space for training and operations. The increased ground-based activity will increase noise activity on base, though, noise impacts on adjacent civilian areas will be negligible given the distance between the 119 WG's facilities and the residences. Therefore, the renovation of existing facilities, and construction of new training sites, troop housing and operations site, as proposed, are not expected to cause long-term noise impacts off-base nor to increase the ambient noise levels at the installation boundary.

4.6 Geological Resources

An impact to geological resources would be considered significant if the Proposed Action would violate a Federal, state, or local law or regulation protecting geological resources (e.g. impacted unique landforms or rock formations), or result in uncontrolled erosion over a larger area than that allowed by regulations.

Construction activities due to the Proposed Action would include soil disturbance either through demolition or ground clearing for preparation of construction. Impacts to soil would be short-term and temporary lasting only the duration of construction activities. In addition, BMPs such as erosion controls and prompt stabilization of open earthwork areas to minimize erosion would be implemented to minimized temporary adverse impacts. No long-term impacts to soils are expected, with only approximately 1.61 acres of permeable land being converted to impermeable from the Proposed Action. The Proposed Action does not include impacts to any known protected geological resources.

4.7 Water Resources

Criteria for determining the significance of impacts to water resources are based on water availability, quality, and use; existence of floodplains and wetlands; and associated regulations. An impact to water resources would be significant if it:

1. Reduced water availability to or interfered with the supply of existing users;
2. Created or contributed to overdraft of groundwater basins or exceeded safe annual yield of water supply sources;
3. Adversely affected water quality or endangered public health by creating or worsening adverse health hazards or safety conditions;
4. Threatened or damaged unique hydrologic characteristics; or

5. Violated established laws or regulations that have been adopted to protect or manage water resources of an area. Impacts of proposed actions would be significant if such would negatively alter flow within the floodplain.

Determination of the significance of wetland impacts is based on:

1. The function and value of the wetland;
2. The proportion of the wetland that would be affected relative to the occurrence of similar wetlands in the region;
3. The sensitivity of the wetland to proposed activities; and
4. The duration of ecological ramifications. Impacts to wetland resources are considered significant if high value wetlands would be adversely affected.

Section 438 of the Energy Independence Security Act (EISA) of 2007 (42 USC § 17094) requires all federal agencies, including the DoD, to reduce stormwater runoff from federal development projects with a footprint that exceeds 5,000 square feet. These projects shall use site planning, design, construction, and maintenance strategies for the property and maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow.

The Proposed Action does not include the alteration of any potential WOTUS or wetlands on the installation. The Base Entrance Repair ATFP Project #4 will occur near wetland areas but will not result in impacts to those resources. The implementation of construction controls (careful delineation of work areas) and erosion and sedimentation BMPs (silt fencing) will prevent accidental releases of material into WOTUS.

Approximately 1.61 acres of permeable land will be converted to impermeable. The increase in impermeable land could potentially increase localized stormwater run-off within the 119 WG installation; however, base drainage has not been reported as an issue. Groundwater recharge is limited due to clay — the 1.61 acres impermeable land will have no effect on groundwater recharge.

The projects to be constructed are in the 500-yr floodplain of the Red River, and while the river has seen major flooding in the past, the base has not reported any flooding issues. There is the possibility that North Dakota will experience more extreme rainfall events in the future due to climate change. However, there is no need to search for on-base alternative locations for individual projects as the entire 119th installation is in the 500-yr floodplain.

4.8 Transportation and Circulation

Impacts to transportation and circulation are assessed with respect to the potential for disruption or improvement of current transportation patterns and systems; deterioration or improvement of existing levels of service; and changes in existing levels of transportation safety. Impacts may arise from physical changes to circulation (e.g., closing, rerouting, or creating roads), construction activity, introduction of construction-

related traffic on local roads, or changes in daily or peak-hour traffic volumes created by either direct or indirect workforce and population changes related to installation activities. Impacts on roadway capacities would be significant if roads with no history of capacity exceedances were forced to operate at or above their design capacity. Impacts would also be significant if additional traffic was added to roads already having significant traffic issues.

The Proposed Action involves moving the existing fueling station, currently located near Building 374, to a new location east of Building 121. This area is less congested than the current fueling station and will improve traffic movements.

4.9 Socioeconomics

The significance of population and expenditure impacts are assessed in terms of their direct effects on the local economy and related effects on other socioeconomic resources (e.g., housing). The magnitude of potential impacts can vary greatly depending on the location of a proposed action; for example, the termination of an operation that employs 25 people in a major metropolitan area may be virtually unnoticed while the same action would have significant adverse impacts in a small community. If potential socioeconomic impacts would result in a substantial shift in population trends, or adversely affect regional spending patterns, the impact would be significant.

An impact to Environmental Justice would be considered significant if the proposed action would result in a disproportionate adverse impact to minority or low-income populations in the project vicinity. An impact to the Protection of Children from Environmental Health Risks and Safety Risks would be considered significant if the proposed action would result in a disproportionate adverse impact to the health or safety of children. An impact to the American Indian and Alaska Native Policy would be considered significant if the proposed action would result in a disproportionate adverse impact to American Indian and Alaska Native populations in the project vicinity.

The Proposed Action would have a beneficial impact to socioeconomics. Construction projects will bring a short-term opportunity for local jobs, including both skilled and unskilled (general labor) construction and related work. Given the low unemployment in Cass County, the addition of temporary jobs is not likely to have a large economic impact to the overall region; however, individuals may be positively affected.

The Proposed Action would have no adverse impact to minority or low-income populations or an impact to the health and safety of children. The percentage of people of color and the poverty-rate are lower in Cass County than the U.S. average and the percentage of children is the same as the U.S. average. The population density in the immediate vicinity of Hector IAP is low with 70.4 people per square mile. Additionally, the nearest residences are approximately 0.24 miles away to the east.

4.10 Hazardous Materials and Wastes, Solid Waste, and Other Contaminants

Numerous local, state, and federal laws regulate the storage, handling, disposal, and transportation of hazardous materials and wastes; the primary purpose of these laws is to protect public health and the environment. The significance of potential impacts associated with hazardous substances is based on toxicity, ignitability, and corrosivity. Generally, impacts associated with hazardous materials and wastes would be significant if implementation of the proposed action would involve the storage, use, transportation, or disposal of hazardous substances that would substantially increase human health risks or environmental exposure. For example, if implementation of the proposed action would exacerbate conditions at an existing area of contamination, impacts would be significant.

A reduction in the quantity of hazardous substances used and/or generated would be a beneficial impact; a substantial increase in the quantity and/or toxicity of hazardous substances used or generated could be potentially significant. Significant impacts would result if a substantial increase in human health risks and/or environmental exposure were generated and such impacts could not be mitigated to acceptable local, state, and federal levels.

For the Proposed Action, there may be temporary construction related impacts to hazardous materials and wastes. Some buildings may need asbestos abatement; this would produce hazardous waste, however abatement and proper disposal of the ACM would result in a long term reduction in hazardous materials at the base. Asbestos removal would require notification to the state: https://deq.nd.gov/forms/WM/asbestos

The projects do not cause an increase in the amount of hazardous materials or wastes at the installation, however, the construction work would likely include refueling equipment at the work site, and potentially may include the use of solvents, coatings or cleaning agents that could be problematic if spilled. It is assumed that all work would include proper material and waste handling, including for asbestos and PFAS contaminated soil and water, would be in accordance with state regulations. Additionally, the 119th WG could consider having a Media Management Plan (MMP) to address any contaminated excess soil or other contaminated waste media that is generated by the projects. The proper storage of materials, the use of spill plans, and the proper off-site disposal of wastes would minimize the chance of hazardous material or waste impacts during construction.

5. CUMULATIVE IMPACTS

This chapter discusses potential cumulative impacts of the Proposed Action for those resources discussed in Chapter 4 that have direct and/or indirect impacts.

The cumulative impacts analysis was prepared in accordance with the requirements of NEPA and guidance from the CEQ, Considering Cumulative Effects under the National Environmental Policy Act. The CEQ defines cumulative impacts as impacts that "result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions (40 CFR §1508.7)." They can result from individually minor but collectively significant actions taking place over a period of time. The cumulative effects of an action may be undetectable when viewed in the individual context of direct and indirect impacts, but nonetheless can add to other disturbances and eventually lead to a measurable environmental change.

5.1 Proposed Projects in the Vicinity

The 119 WG has an IDP dating from 2010. This plan includes various proposed short, medium, and long-term development projects. The amount of developable area within the base footprint is limited by the adjacent airport, safety and anti-terrorism requirements, and similar constraints. The short-term plan includes projects in the Proposed Action, including upgrading various buildings, improving aircraft aprons and parking, and demolitions of unused building space to align the available space with mission requirements. The mid-range and long-term plans include projects that will align the base for future mission success. These could include re-doing the munitions storage area, upgrading the maintenance hangar and shops, and consolidating the Squadron Operations. A strategic long-term plan would be to improve the base circulation by realigning 14th Street to allow for more efficient land use and a more pedestrian-friendly campus. This proposal could be coupled with a new entry control point that would provide more flexible queuing space. Overall, the development projects would remain on the existing base footprint, use existing buildings as appropriate, and select construction of new features to provide for a sustainable future operation.

Hector IAP developed a Master Plan that was approved by the Federal Aviation Authority in 2018. The plan presents projects identified for implementation between 2017 through 2032. Projects involve a range of improvement efforts, equipment purchases, and planning initiatives. Table 11 includes a summary of proposed work included on that list.

Table 11: Proposed Future Projects for Hector International Airport

Taxiway A reconstruction	SRE Building expansion
Runway 18-36 CL/TDZ lighting	Elevated walkway
Cargo Apron Expansion	Pavement Rehabilitation
Terminal Apron Reconstruction	Runway 18L036R & Runway 9-27 EA
Pavement Rehabilitation	Runway 9-27 Strengthening & widening
Taxiway C Strengthening & widening	Runway 9-27 Extension
Taxiway C Extension	North GA Taxiline Extensions
Pavement rehabilitation	Runway 18-36 shoulder construction
SRE replacement	Parking lot expansion
Access Control systems &CCTV System upgrades	Perimeter Road Reconstruction and rehabilitation
East GA Expansion	Taxiway D Reconstruction
Pavement rehabilitation	Runway 18L-36R Construction

5.2 Air Quality

Estimated emissions generated by the Proposed Action would be minor and below regulatory thresholds and would not contribute significantly to adverse cumulative effects on air quality. Many of the IDP projects would generate short-term air emissions and fugitive dust during construction from site grading, use of construction equipment, and paving. Some of the IDP projects would generate long-term emissions during operation, such as from HVAC systems in new buildings. The airport plans for future upgrades, including features that would potentially allow for more or larger aircraft. However, the population trends do not support the conclusion of a major expansion of air service. Some additional development may occur in the airport environs if new services are supported; that development would potentially cause increased traffic and vehicle emissions. However, none of the past, present, or reasonably foreseeable projects would have substantial cumulative effects on air quality when combined with the Proposed Action. Therefore, cumulative effects on air quality would be minor.

5.3 Noise

Construction noise attenuates relatively rapidly with distance, so the area where noise from multiple projects would overlap is relatively small. A large increase in the number or size of aircraft, at the base or at the airport, is not expected based on the comparatively small population and lack of mission changes. None of the other past, present, or reasonably foreseeable projects are close enough to the Proposed Action area or on the same timeline to cause concurrent construction noise. Operational noise levels would not appreciably exceed baseline noise levels in the area when combined with the past, present, and reasonably foreseeable projects. Therefore, cumulative effects on noise would be minor.

5.4 Geological Resources

No significant adverse cumulative impacts to geological resources would occur. The site contains previously disturbed soils due to base development and/or agricultural practices. Therefore, disturbance of the soils at the project site would not contribute to cumulative adverse impacts when combined with past, present, and future projects.

5.5 Water Resources

No significant cumulative impacts to water resources are expected because the Proposed Action will not significantly impact these resources. When combined with past, present, and future projects, adverse cumulative impacts are not expected because avoidance, minimization (i.e., BMPs), and mitigation measures would be employed for each project as directed by state and federal regulations.

5.6 Transportation and Circulation

None of the identified past, present, or reasonably foreseeable projects would have significant cumulative effects on transportation and traffic circulation when combined with the Proposed Action. Circulation within the base and the airport may be improved by proposed projects, however, these are unlikely to impact the surrounding community.

5.7 Socioeconomics

None of the identified past, present, or reasonably foreseeable projects would have significant cumulative effects on socioeconomics, environmental justice, the protection of children, since the number of potential job impacts is a modest increase with the new mission, or is limited to temporary construction projects. A large change in the workforce is not anticipated. No disproportionate impacts to sensitive or disadvantaged populations were identified. Therefore, cumulative effects on socioeconomics would not be significant.

5.8 Hazardous Materials and Wastes, Solid Waste, and Other Contaminants

None of the identified past, present, or reasonably foreseeable projects would have significant cumulative effects on hazardous materials and wastes, solid waste, and other contaminants, since the generation of increased volumes of hazardous and solid wastes are temporary due to construction. Additionally, the use, handling, storage, and disposal of these products and wastes would continue to be accomplished in accordance with state and federal regulations. Therefore, cumulative effects on hazardous materials and wastes, solid waste, and other contaminants would not be significant.

6. FINDINGS AND CONCLUSIONS

This chapter summarizes the findings of the environmental effects analysis, measures that would be implemented to avoid or minimize environmental impacts, permit requirements associated with the Proposed Action, and the conclusion of the EA.

6.1 Summary of Environmental Effects

Table 12 shows the potential effects of implementing the Proposed Action for the environmental resources evaluated versus the No Action Alternative. Implementing the Proposed Action would result in short-term and long-term less than significant impacts, long-term impacts, and beneficial impacts. Cumulative effects would not be significant (refer to Chapter 1).

Table 12: Summary of Environmental Impacts

Environmental Resource	Proposed Action	No Action Alternative	Alternative 1
Safety	No impact/ long-term beneficial impact	No short-term/long-term impact	No short-term impact/ long-term beneficial impact
Air Quality	No significant short-term impact/ no long-term impact	No short-term/long-term impact	No significant short-term impact/ no long-term impact
Noise	No significant short-term impact/ no long-term impact	No short-term/long-term impact	No significant short-term impact/ no long-term impact
Land Use	No short-term/long-term impact	No short-term/long-term impact	No short-term/long-term impact
Geological Resources	No significant short-term impact/ no long-term impact	No short-term/long-term impact	No significant short-term impact/ no long-term impact
Water Resources	No significant short-term impact/ no long-term impact	No short-term/long-term impact	No significant short-term impact/ no long-term impact
Biological Resources	No short-term/long-term impact	No short-term/long-term impact	No short-term/long-term impact
Transportation and Circulation	No short-term impact/ long-term beneficial impact	No short-term/long-term impact	No short-term impact /long-term beneficial impact

Environmental Resource	Proposed Action	No Action Alternative	Alternative 1
Visual Resources	No short-term/long-term impact	No short-term/long-term impact	No short-term/long-term impact
Cultural Resources	No short-term/long-term impact	No short-term/long-term impact	No short-term/long-term impact
Socioeconomics	Minor beneficial short-term impact/ No long-term impact	No short-term/long-term impact	Minor beneficial short-term impact/ No long-term impact
Hazardous Materials and Wastes	No significant short-term/long-term impact	No short-term/long-term impact	No significant short-term/long-term impact

6.2 Best Management Practices and Control Measures to Reduce Effects

6.2.1 Air Quality

Project construction would employ BMPs to minimize fugitive dust and tailpipe emissions. BMPs to minimize fugitive dust could include using water to control dust and cleaning streets as needed, and phasing construction to minimize exposed surface areas. BMPs to reduce tailpipe emissions could include minimizing unnecessary idling of vehicles and machinery. All diesel fuel will be ultra-low sulfur dioxide, as required by law, to reduce construction equipment emissions. Similarly, construction equipment will use required emissions controls such as catalytic converters and particulate traps. In general, all construction equipment will meet the 1996 emissions standard as required by law.

In addition, asbestos abatement or similar environmental abatement needed prior to building renovations (e.g., removal of mercury ballast fluorescent lights, lead paint, mercury ballasts or switches) would be done in accordance with federal laws, worker safety requirements, and safe disposal requirements. Notification to the state of asbestos removal would be required: https://deq.nd.gov/forms/WM/asbestos. All renovations and new construction will follow current guidance for sustainable buildings, including AGRAM 17-01, EO 13834, and UFC 1-200-02 (refer to Section 1.5.8 for a discussion on sustainability requirements). Guidance for sustainable buildings addresses, in part, efforts to reduce greenhouse gas emissions.

These BMPs are not necessarily all-inclusive; the 119 WG and any contractors would need to comply with all applicable air pollution control regulations.

6.2.2 Noise

Project construction would limit work hours to avoid early morning, evening/night, and weekends to minimize nuisance noise levels at nearby residences.

6.2.3 Geological Resources

BMPs will be implemented in accordance with the General Permit for Stormwater Discharges Associated with Construction Activity and its associated SWPPP. Implementation of construction BMPs would minimize soil erosion impacts that are caused by wind and stormwater.

6.2.4 Water Resources

The Proposed Action would comply with the installation's General Permits, associated SWPPPs with specified BMPs, and stormwater controls sufficient to ensure no net increase in peak flow rates and total volume of runoff from the site. BMPs, such as silt fencing, would be installed on the perimeter of the construction site to keep erosion from migrating to water resources such as nearby wetlands. Post construction would include reseeding any staging areas and non-built areas with native grass species to stabilize soils. The installation will implement their Stormwater Management Program and SWPPP in accordance with state and federal regulations. There is no proposed construction in known wetland areas or within a floodplain.

6.2.5 Transportation and Circulation

The Proposed Action will include the implementation of appropriate signage on local roadways to inform users of any detours, lane closures or construction traffic that would impact public roads.

6.2.6 Cultural Resources

In case of inadvertent archaeological discovery during ground-moving operations, work would immediately cease in the vicinity of the discovery and the 119 WG would conduct further consultation with the SHPO and federally recognized tribes to determine an appropriate course of action. Work would not resume until this additional consultation process is complete.

6.2.7 Hazardous Materials and Wastes, Solid Waste, and Other Contaminants

All hazardous materials and waste would be stored and handled in compliance with applicable federal and state laws and regulations, and the procedures outlined in the 119 WG's HWMP. Offsite transportation of hazardous waste, if any is required, would be done by a transporter with a hazardous waste identification number, licensed and insured to manage hazardous waste. Asbestos abatement needed before renovations or demolition will follow federal law, including health and safety requirements. Consistent with EO 13834, recyclable materials and construction and demolition debris will be diverted from the solid waste stream during implementation of the Proposed Action.

6.3 Required Permits

The following permits will be obtained prior to construction activities:

- North Dakota General Rule Construction Permit for activities that include land disturbance and that could result in pollution to waters of the State (i.e., also known as a stormwater permit or erosion control permit).

- Asbestos Notification of Demolition and Renovation, SFN17987, for any project that requires asbestos abatement.

6.4 Conclusions

Based on the analysis presented in the EA, implementation of the Proposed Action would not result in significant or major adverse impacts on any of the resources analyzed within this document, and no further analysis or documentation, such as the preparation of an EIS, is required.

- Minor and short-term impacts would occur from implementation of the Proposed Action to:
    - Air Quality
    - Noise
    - Geological Resources
    - Water Resources
    - Hazardous Materials and Wastes
- Beneficial long-term impacts would occur to:
    - Safety
    - Transportation and Circulation
- A short-term beneficial impact to socioeconomics would occur due to temporary construction job opportunities.
- The impacts of the Proposed Action when combined with impacts from other present or planned development in the surrounding area are not anticipated to result in significant adverse cumulative impacts.

All practical and reasonable means will be employed by the ANG to minimize the potential adverse impacts on the human and natural environment. Therefore, a FONSI is warranted.

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9. APPENDICES

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9.1 APPENDIX A

INTERAGENCY AND INTERGOVERNMENTAL COORDINATION FOR ENVIRONMENTAL PLANNING CORRESPONDENCE

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9.2 APPENDIX B

SUPPORTING WILDLIFE INFORMATION

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9.3 APPENDIX C

USFWS ENDANGERED SPECIES COORDINATION

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9.4 APPENDIX D

AIR IMPACT ANALYSIS

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